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ABSTRACT

Four primary papers and additional related reaction papers are presented from a conference sponsored by the Association of American Library Schools, the Organization of American States, and the Seminar on the Acquisition of Latin American Library Materials, which was held to promote a useful dialog between educators from North American library schools and their Latin American and Caribbean counterparts. In "Changes in the Library and Information Science Curriculum: The Case of Mexico," Guadalupe Carrion describes several current programs and presents some views on foreseen changes and on the implementation of two core curricula. Reaction papers are presented by Patricia B. Pond and Rosario Gassol de Horowitz. Kenneth E. Beasley, in "Library Education in the Americas: The United States," examines current issues in library education. The third primary paper is "Basic and Continuing Preparation of Teachers of Library and Information Science in Latin America," by Nice Menezes de Figueiredo. Reactions are presented by Maria de Faunce. Jane Robbins Carter's paper, "Basic and Continuing Preparation of Teachers of Library and Information Science in the United States," is followed by reactions of Russell E. Bidlack and Adrian Araya. Recommendations and conference participants' names and addresses are included. (LMM)

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LIBRARY AND INFORMATION SCIENCE EDUCATION IN THE AMERICAS: PRESENT AND FUTURE

PAPERS FROM A CONFERENCE HELD IN AUSTIN, TEXAS

14 February 1980

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Edited by
William Vernon Jackson

association of american library schools

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INTRODUCTORY NOTE

Nearly 100 persons participated in a one-day Conference on Library and Information Science Education in the Americas: Present and Future, held at the Sheraton Crest Inn in Austin, Texas, on 14 February 1980. The sponsoring organizations, the Association of American Library Schools (AALS), the Organization of American States (OAS), and the Seminar on the Acquisition of Latin American Library Materials (SALALM), hoped to promote a useful dialog between educators from North American library schools and their counterparts in Latin America and the Caribbean, to open new channels of communication, and to explore the possibilities for hemispheric collaboration in library education. For these reasons, it was decided to hold the assembly as a pre-conference of the 1980 Annual Meeting of AALS, to which the Latin American participants were also invited.

Although this publication contains all four papers presented at the conference, it does not constitute the day's complete proceedings. Not all of the "reactions" to the papers were available for publication; similarly the lack of rapporteurs precluded inclusion of summaries of the two round table discussions which concluded the morning and afternoon sessions. Nor have we chronicled here events which took place subsequent to the meeting (e.g., the formation of the AALS special committee and its later activities). Nevertheless, AALS felt that it would be useful to make this documentation available not only to the participants but to others who are interested in education for librarianship in Latin America.

The Association of American Library Schools wishes to express its thanks to the co-sponsors, OAS and SALALM; to Esther R. Dyer, director of the pre-conference; to the Program in Latin American Library Studies of the Graduate School of Library and Information Science of the University of Texas at Austin, which handled local arrangements; and to the School of Library and Information Science, University of Western Ontario, which assisted in publishing this report.

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PROGRAM

8:00 a.m. Opening Session.

Welcome from Association of American Library Schools—GENEVIEVE CASEY, President

Welcome from Organization of American States—MARTHA V. TOME, Senior Specialist, Library Development Program

Program Preview—ESTHER R. DYER, Pre-conference Director

SESSION I: CHANGES IN THE CURRICULUM FOR LIBRARY AND INFORMATION SCIENCE

Moderator: ANA M. D. CLEVELAND

8:15-8:45 a.m. Part A: Speaker—GUADALUPE CARRION
Reactors—PATRICIA POND and ROSARIO HOROWITZ

9:30—10 a.m. Part B: Speaker—KENNETH E. BEASLEY
Reactors—JOSE ARIAS and JAMES MATARAZZO

11:00—Noon Round Table: Participants—CARRION and BEASLEY joined by PETER HIATT, DONALD FORK, DAPHNE DOUGLAS, and EDITH ARAUJO DE MERINO

Noon Luncheon. Greetings from the University of Texas at Austin—WILLIAM V. JACKSON

SESSION II: BASIC AND CONTINUING PREPARATION OF TEACHERS OF LIBRARY AND INFORMATION SCIENCE

Moderator: EDWIN S. GLEAVES

2:00—2:30 p.m. Part A: Speaker—NICE MENEZES DE FIGUEIREDO
2:30—3:00 p.m. Reactors—JEAN LOWRIE and MARIA CASAS DE FAUNCE

3:15—3:45 p.m. Part B: Speaker—JANE ROBBINS CARTER
Reactors—RUSSELL E. BIDLACK and ADRIAN ARAYA

4:15—5:30 p.m. Round Table: Participants—FIGUEIREDO and ROBBINS joined by ADOLFO RODRIGUEZ GALLARDO, ARABIA COVA, ROBERT D. HARLAN, and WILLIAM V. JACKSON

5:30—6:00 p.m. Closing Summary

6:00 p.m. Social Hour

CHANGES IN THE LIBRARY AND INFORMATION SCIENCE CURRICULUM: THE CASE OF MEXICO

GUADALUPE CARRIÓN

Director of Libraries
Dirección de Publicaciones y Bibliotecas
Secretaría de Educación Pública, Mexico

The purpose of this brief presentation is to shed some light on the present situation of the curriculum in library and information science, with special reference to Mexico, the country with which I am most familiar. It does not pretend to evaluate the programs to which reference is made, but rather to present the characteristics of the programs presently in operation, as well as some views on the changes foreseen and on the implementation of two core curricula. I should like to indicate at the outset that, although I am deeply interested in the problems of library education and was directly engaged in library programs in recent years, I do not play at present any role in our library schools.

General Background

There is no doubt that education and training is one of the more lively and pressing problems in librarianship that, so far, has not been solved. Despite many serious efforts, the development reached is still weak, and this weakness is reflected in the quality of the library and information services offered.

Although this problem has been considered for a long time, references will be made to actions taken in the last two decades either at a regional or national level. They are clear evidence of the interest of the professionals in the area, as well as of national and international organizations, in arriving at practical solutions. Just to mention some of them, it is important to remember that the Workshops at Medellín, Colombia, from 1962 to 1965, devoted time to the analysis of the existing curricula.[1] Among other recommendations, it was then suggested by the participants that a standard curriculum be prepared, as a point of departure for Latin American countries.

Some years later, in 1972, the Latin American Commission of the International Federation for Documentation (FID/CLA) sponsored a "Latin American

Seminar on the Preparation of Information Scientists," held in Mexico City.[2] It was probably one of the first occasions in our region to use the expression "information scientists" to define the "new" professionals needed and required for the operation of information services, and the role they should play in our modern society was analyzed. It was early in the 1970's when the emergence of some formal programs for information specialists took place. Brazil and Argentina could be mentioned among the first nations to offer them. Other countries such as Chile and México started offering, if not a complete program, at least some credit hours in the area known as information science.

So far, the most common courses offered in our programs are in the following areas: automation, communication, information theory and cybernetics, research techniques, documentation, thesauri, information retrieval, and a few more. Nevertheless, the mere listing of the areas does not convey any relevant information: analysis of the subject content is much more important (detailed programs are not available at this time).

Other regional meetings dealing with this topic took place in the 1970's: the ones held in Medellín[3] in May 1974, in México,[4] and in Bogotá[5] in September and November 1976 respectively.

At the national level, there were two recent seminars on this topic, held in México and sponsored by the professional associations.[6,7] One more convened by AMBAC is to be held in Guanajuato, México, from February 18-22, 1980. Its goal is to discuss problems pertaining to education in this field with directors of library schools and with other professionals from various institutions of higher education interested in the implementation of licenciatura programs in the short run. But, despite the seminars or workshops held and the introduction in some countries of formal programs or courses on the subject, it is pertinent to ask ourselves if the professional required to cope with the present information needs and demands of our modern society has already been formed.

Have the different national realities been analyzed? Are those courses the answer to them? Has the profile of the professional required already been defined according to national realities, be they librarians, information specialists, or documentalists? Or do those programs or courses simply respond to a kind of snobbism, which shows that the library or information programs of the region, or of a given country, keep up with recent developments?

It would probably not surprise the participants to learn that the last question might reflect the present situation: it has been, in most cases, a matter of dropping and adding courses, often without keeping in mind the professional profile delineated in response to specific needs, and so new course titles may simply hide traditional contents.

In analyzing and comparing the specific situation in each country, it reflects a lack of agreement as to the core or basic subjects, their specific content and duration. If we go further into this problem we find no consensus as to the kind of diplomas or certificates granted; entrance requirements; or identification of the basic supporting material needed, such as collections, laboratories, and so on . All these aspects could easily be proved by going throughout the reports presented[8] in the Seminar convened by UNESCO in November 1976. It is for this reason that one of the widely accepted propositions made by the participants in regional or even national seminars and conferences to which reference has just been made is the urgent need to propose a core curriculum, designed by a group of experts, which could then be submitted for consideration to the various library school directors, as a way to enrich it through opinions and experience of other qualified people.

There would be advantages in designing a core curriculum for the library schools of the region. Those advantages could be:

(a) Definition of the tasks the professional will be capable of performing;
(b) Consensus on the definition of entrance requirements;
(c) Identification of the subjects required to form the professional capable of performing the activities that an information unit should carry out;
(d) Agreement on the content of basic subjects and on their names;
(e) Agreement on the number of hours allocated to each subject;
(f) Facilities to disseminate basic bibliography and eventually to exchange it, as well as other supporting material from the various subjects forming the core curriculum;
(g) Facilities to prepare teachers and to offer them teaching aids, one of the serious weaknesses of the system of library education;
(h) Agreement on the names and quality of degrees awarded.

Such a consensus would allow the library schools to build on one common and well known foundation, but, more importantly, to know precisely what kind of a professional is being formed in each one of the schools in the region offering a core curriculum.

There might be objections to the existence of a core curriculum, because it could be said that, whereas there are countries where a higher level of development has been reached and where more sophisticated information activities are already being carried out, there are others whose development is still very weak, a library structure almost nonexistent, and the number of professionals in this field far from meeting even the most basic needs. Since this is a valid observation, the benefit from using a single core program in the several countries of the region, regardless of their stage of development, could be questioned. This concern could eventually be dealt with by proposing the development of two core curricula, one at a technical level and another at the professional level. The latter would correspond in educational level to what in most of our countries is known as licenciatura. In both instances the benefits will be those already indicated.

The elaboration of two core curricula would meet the different national needs and realities. It is true that there have been pro and con arguments for accepting the existence of technical programs; it is unrealistic, for our countries, to determine that the only accepted starting point is the professional level.

As a general observation on technical programs, it could be said that their implementation responds to particular circumstances and needs, and are not in all instances the responsibility of the library schools, so there is a greater danger in structuring all different sorts of programs, which result in lack of uniformity of their content, duration of the programs, qualifications of the professors, and so on. Such a diversity of programs justifies the diversity of the kind of technician prepared. There is not a common floor yet so as to define the tasks such a technician is able to undertake. There is also the risk that those technicians will somehow prevent or retard the hiring of professionals. Despite these matters, there is no doubt that professionals need the support of technicians, and both programs, the technical and the professional, have to be run in parallel based on national sound reasons and justifications.

A clear identification of the tasks the technician will be prepared to undertake is required. Aware of the differing national realities and of the role the technical programs should play, it is reasonable to propose the preparation of a core program at this level as a common point of departure, so as to avoid the generalized short, basic courses (1 week, 3 weeks, 5 or more) that are often mistakenly felt to be the solution to specific problems, but

which have proven in practice to be almost useless, because the technician who takes them receives a very superficial preparation, reflected afterwards in the quality of his performance. A suggested possible way to develop a curriculum for this level would be to utilize modules. This implies first, agreement on the basic subjects forming the curriculum, which should be flexible enough to permit modules or sections, once the tasks the technician has to be able to perform have been identified. This identification has to be done in accordance with national needs. A single course on, say, services, or periodical publications, can be offered without harming the curriculum. If the students take all subjects, they can receive the technical diploma.

Library Education in México

In case some of the participants in this Seminar are not familiar with the general panorama of library education in México, it may be useful to talk briefly about the existing schools and the level of education offered at each one of them. Most of the information about curricula was provided by directors of the schools or by the persons responsible for them.

In the capital of the country, Mexico City, there are two library schools: (1) The National School of Librarians and Archivists (ENBA), sponsored by the Ministry of Education, and (2) the programs offered at the Faculty of Philosophy and Letters within the National Autonomous University of Mexico (UNAM). The first one offers two levels: (a) a technical one in 6 semesters, with hours of theory and of practice in library science. The secondary certificate is the main entrance educational requirements. At the end of the sixth semester the student is awarded a certificate as a technical librarian, valid also as the third level certificate corresponding to the bachillerato or preparatory level. This certificate enables the student to go into another field at the professional level (within the social sciences area), or to continue with professional studies in librarianship. (b) The licenciatura level is offered in library science in eight semesters. It requires 68 hours of theory and 46 hours of practice. The preparatory certificate is required for admission. A thesis and professional exam must be presented before the degree is awarded. Table 1 lists the subjects offered at both levels, and the number of hours of theory and practice allocated to each one of them. As shown in the table, there is a difference in the total number of credit hours at both levels, since general cultural

TABLE 1

COURSES OFFERED BY ENBA

	Technical		Licenciatura	
	Theory	Practice	Theory	Practice
Introduction to librarianship	4	2		
Services (I-II)	6	6		
Principles of cataloging	4	2		
Principles of classification	2	4		
Subject headings	2	4		
Acquisition of documentary materials	2	4		
Periodical publications	2	4		
Introduction to bibliography	2	4		
History of the books			2	2
History of libraries			2	2
Reference service			2	2
Special information services (I-II)			4	4
Selection of documentary material			4	2
Cataloging of anonymous and corporate authors; subject headings			4	2
Cataloging of special materials			4	2
Application of Dewey classification			4	2
Application of Dewey classification and L.C. classification principles			4	2
Documentation (I-II)			8	4
Bibliography (I-II)			8	4
Library administration (I-II)			4	4
Public libraries			2	2
School and children libraries			2	2
Special libraries			4	2
University libraries			4	2
Planning of library and information services (I-II)			4	4
Comparative librarianship			2	2
TOTALS	24	30	68	46

courses are also required. This information comes from the ENBA publication, Bibliotecas y Archivos, No. 8 (1977). The curricula at both levels is under revision at present, and it is likely that some changes might be introduced starting in September. This revision has been undertaken, because the present programs, although modified in 1975, do not fully respond, in the opinion of the directors, to the country's requirements. This observation refers more directly to those courses identified as "cultural." ENBA belonged up to August 1978 to the General Direction of Technological Institutes and thus the cultural courses offered at ENBA had to be accepted by the above mentioned Direction. When in 1978 the ENBA became one of the Directions of the General Direction of Publications and Libraries, the directors took advantage of the change to reconsider and analyze the entire curriculum.

The Faculty of Philosophy and Letters at UNAM offers licenciatura and master's programs. The first is administered by the College of Librarianship (CB), and the second by the Division of Graduate Studies of the above mentioned Faculty. The first level, as the one offered at ENBA, has general cultural subjects, plus the credit hours in the area of librarianship. The master's program is offered in two years. A candidate holding a licenciatura degree can enter this program without being requested to take prerequisite courses. A candidate holding a licenciatura from another area is requested to take a semester of prerequisite courses in this field. The curriculum consists of monographic courses and seminars, usually completed in two years. These are the following:

Monographic Courses

The university library
General linguistics
Universal decimal classification
Scientific administration
Library terminology
Information on patents
Information channels
Transliteration
Information storage and retrieval

Seminars on:

Library research
Information on humanities
Informatics
Computers applied to libraries
Teaching methods
Medical libraries

Medical information sources
Transliteration
Publications of international organizations
Comparative librarianship
Organization of manuscripts
Terminology (documentation/information)
Information for industry
Documentary research

A thesis is required. This program is at present under revision, and there is hope that it will be modified for the next academic year beginning in October 1980.

Outside Mexico City there is a technical program offered at the University of Guadalajara, started in 1975, with a total number of 450 hours of subjects offered in the library field, distributed in 6 semesters. Twenty-four persons, up to July 1979, had taken the program, and its main objective has been to prepare technicians for the university libraries. All, with the exception of one, so far, have gone on to professional studies. Table 2 gives the courses and number of hours allocated to each. There is also a licenciatura program offered at the Autonomous University of Guadalajara (UAG), a private institution. This program follows the lines of and is accredited by the CB.

TABLE 2

COURSES OFFERED AT THE TECHNICAL LEVEL,
UNIVERSITY OF GUADALAJARA

Course	Hours
Introduction to librarianship	30
Library services (I-II)	90
Workshop on classification	60
Etymologies applied to librarianship	30
Reference sources	30
Workshop on cataloging	60
Bibliography	30
Workshop on catalog organization	60
Statistics applied to libraries	30
Library administration	30
TOTAL	450

With respect to graduate programs, there are two at present offered in provincial universities: one at the Autonomous University of Nuevo León and the other at the University of Guanajuato. The first one was started in September 1977 and the second in January 1978.

The listing of courses offered at the Autonomous University of Nuevo León is the one indicated in Table 3. All of them last for one quarter, except when otherwise indicated. The first group originally enrolled twelve students, out of which eight still remain; they will complete their studies in March 1980, and a new group will start in February this year, if a minimum number of ten students apply and are accepted by the program.

TABLE 3

COURSES IN MASTER'S PROGRAM,
AUTONOMOUS UNIVERSITY OF NUEVO LEÓN

Introduction to librarianship
Information sources and services
Bibliographic description and organization of knowledge (2 quarters)
Introduction to information science
Resources and reference services in humanities and social sciences
Administration of libraries and information centers
Analysis and design of information systems
Research methods
Automation
Storage retrieval and dissemination of information
Library education
*Resource and reference services in science and technology
*Mexican bibliography

*Not offered during the first period.

Several other institutions located in the city of Monterrey have offered their support to the program; students, residents of that city, work half time in their libraries and devote some hours during the week to their courses. There are no full time professors. The weakest aspect of this program is probably the lack of bibliographic support.

The following are the characteristics of the program offered at the University of Guanajuato: it is a full time program; twelve students were enrolled in 1979, and during the course one of them dropped out. Of the remaining eleven, only three presented the essay or research paper required for graduation, and six more indicated that they will present it this year. The professional collection, in the opinion of the professors, is rather well rounded, including about 45 periodicals in the field.

The first program was structured in short intensive modules of three weeks each (45 hours per course) divided in 3 main areas. Professionals holding a master's degree were invited to teach each one of them. The only person in residence for the program was the coordinator, who at the same time fulfilled other duties within the university library system.

For the second year, starting in January 1980, the curriculum was carefully revised, and several modifications were introduced. Some of the main changes are the following: the duration of courses varies from three to ten weeks, with a total number of 30 to 60 hours; some courses were split, so that more emphasis will be given to specific aspects, which in the opinion of the coordinator and the professor who taught the course in 1979, deserve more attention. This is the case, for instance, of "Selection," originally taught with "Technical Operations." A course on "Education for Librarianship" was introduced, as well as two courses on quantitative analysis, as a basis for the course "Analysis and Mechanization of Library Systems." In 1980 there are two full time professors in residence. Table 4 gives the original program, and Table 5 lists the courses to be offered this year and the time allocated to each one. The main changes in the structure and duration of the program is justified, because after a year of experience it became clear that the short duration of the courses affected the students' learning process. Information provided here about curricula is again limited to the listing of subjects. It is most important to undertake a careful analysis of the characteristics and content of the courses, unfortunately not available for many of them. Library school

TABLE 4

ORIGINAL PROGRAM (1979) FOR MASTER'S DEGREE,
UNIVERSITY OF GUANAJUATO

Areas	Courses
User services and resources	The library: its community and collections.
	The communication process and the reference service.
	Resources and reference systems in humanities, social sciences; science and technology.
	Specialized materials and services.
Administration and research	The university environment.
	Administration.
	Mexican academic libraries.
	Problem solving (research methods).
Information science and technology	Bibliographic description (cataloging).
	Organization of knowledge (classification).
	Technical operations.
	Analysis and mechanization of library systems.

TABLE 5

CURRICULUM FOR MASTER'S DEGREE (1980),
UNIVERSITY OF GUANAJUATO

Course	Hours
Administration (I-II)	60
Reference service and basic bibliography	40
Introduction to library and information sciences	30
Cataloging	40
Selection of materials	30
Classification	60
Research methods	30
Introduction to quantitative analysis	30
Education for librarianship	30
Reference services in humanities and social sciences	40
Technical operations	30
Applied quantitative analysis	30
Communication	30
Reference services in science and technology	30
Analysis and mechanization of library systems	30
Special materials and services	30
Thesis project	10
TOTAL	510

directors should insist on their professors preparing course outlines at the earliest possible time. This is the only way to gain a detailed knowledge of the curriculum of each school as an integrated unit and, as a byproduct, such individual analysis will serve as the indispensable material for comparisons with other national or foreign curricula. After such studies are made, there could be a more solid frame of reference to build up the core curricula.

A general comment about the above programs is the fact that elective courses for the different levels have rarely been offered; and even when this is the case, it seems to respond to the availability of somebody willing to offer a given course. Seldom do they reflect a well rounded and balanced plan.

Training Programs

The programs discussed above are those in our formally established library schools. But due to the fact that their enrollment is so small, the national demand for librarians can hardly be satisfied. For this reason, various activities have been undertaken in recent years to solve the lack of trained personnel. Many of them have been sponsored and organized by individual institutions for their own purposes; however, there is no reference to them here, since the aim of this presentation is to deal with curricula aspects. Among the most important activities of this sort, there have been some of nationwide scope. For example, the ENBA-CONACYT courses were offered, in first instance, to persons who were working in libraries of institutions of higher education. Supported by the National Council for Science and Technology (CONACYT), these courses took place from 1973 to 1978. After the second group in 1975, persons not yet working for those libraries, but that were to be hired for them, were also accepted. Approximately 270 people participated. The curriculum for this course was designed by a consultant with a long experience in the development of technical programs. It was discussed with the directors of ENBA and with professionals from CONACYT.[9] As indicated, the program responded to the characteristics and most pressing needs of institutions of higher education. Periodical evaluations led to some modifications in the original plan.

A similar program, national in scope, has recently been started by the Ministry of Education for persons already working in public libraries. In this case, the point of departure was the ENBA-CONACYT course, with a reduction

in the number of hours to 410. A basic bibliography was selected for both programs, and a special effort was made to include as much material in Spanish as possible. Table 6 gives the courses and number of hours for both programs.

These programs have provided valuable experience; the methodology followed, content, duration, bibliography, and so forth, are available to anybody interested in them, and could eventually be a point of departure for the development of a core program, as proposed here.

TABLE 6

TRAINING COURSES

ENBA-CONACYT Course No. of Hours	Subject	Public Libraries Course No. of Hours
60	Introduction to librarianship	40
180	Information sources	72
70	Services	40
200	Technical processes (cataloging, classification, subject headings)	152
30	Periodical publications	--
50	Administration (basic principles and of institutions of higher education)	36
30	Research methods and reprography	--
80	Practice	70
700	TOTAL	410

Conclusion

If there is a will to cooperate, a practical way to start solid and long lasting actions in the area of library education would be to propose a methodology for analyzing national realities: identification of the present number of library and information services; number and educational characteristics of their staff; development foreseen in all information sectors (public, school, higher education and research institutions); resources available; expected growth. From an analysis of these factors, among others, would come a sound basis to identify the kind and number of people needed, either technicians or professionals, and thus adequate curricula could be developed.

FOOTNOTES

1. Normas para escuelas de bibliotecología (Washington, Unión Panamericana, 1966) (Cuadernos bibliotecológicos, 29).

2. International Federation for Documentation/Latin American Commission (FID/CLA), Seminário latino-americano sobre preparação, México, 23-25 agosto, 1972 (Rio de Janeiro, Instituto Brasileiro de Bibliografia e Documentação, 1972).

3. Reunión de Consulta sobre los Programas de la OEA para la Formación de Bibliotecarios en América Latina, [Trabajos] (Medellín [Escuela Interamericana de Bibliotecología, 1974]).

4. Pre-session Seminar on Education and Training, [Papers] (Mexico, CONACYT-UNAM, 1976).

5. Encuentro Latinamericano de Directores de Escuelas de Bibliotecología, Bogotá, 1976, Informe Final (Bogotá, División de Documentación e Información, ICFES, 1977).

6. Jornadas Mexicanas de Biblioteconomía, 6as., Querétaro, 1976, Los recursos humanos para el desarrollo de los servicios bibliotecarios (México, Asociación Mexicana de Bibliotecarios, A. C., 1976).

7. Seminario de Educación Bibliotecológica en México, San Luis Potosí, 1978, Memorias (México, Asociación Mexicana de Bibliotecarios de Instituciones de Enseñanza Superior e Investigación, 1978).

8. Encuentro Latinoamericano de Directores de Escuelas de Bibliotecología, Bogotá, 1976, [Documentos] (Bogotá, 1976).

9. Patricia Hernández Mejía y LLera, "Curso intensivo de entrenamiento técnico para bibliotecarios (ENBA-CONACYT)." In: Jornadas Mexicanas de Biblioteconomía, 6as., Querétaro, 1976, Los recursos humanos para el desarrollo de los servicios bibliotecarios (México, Asociación Mexicana de Bibliotecarios, A. C., 1976), pp. 9-24.

REACTION

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Carrión in her introduction makes it clear that most of her presentation refers to programs in the country with which she is most familiar, Mexico. Similarly most of my presentation refers to programs in the country with which I am most familiar, the United States, and in particular to programs at the University of Pittsburgh whose School of Library and Information Science has over the years attracted many international students including those from Latin American countries and most recently from Spain. I am directing my comments to the first section of Carrión's paper, which provides general background on recent developments in the library and information science curriculum in Latin America, rather than to the second section on specific programs in Mexico.

Carrión notes that it was at a 1972 FID/CLA-sponsored seminar in Mexico City that the expression "information scientist" was probably first used in Latin America to define the new information professionals required not only for operation of information services but also for new roles in society. Soon after this, courses and programs in the information science area began to be offered in Latin America. Attempts are still underway both in North and South America to define the new field of information science, identify the environments in which these new information professionals operate, and plan educational programs needed to develop such professionals.

One such attempt currently underway at the School of Library and Information Science at the University of Pittsburgh is a National Science Foundation-sponsored study, under the direction of Dr. Anthony Debons, of manpower requirements and training needs for information professionals in scientific and technical communication.[1] Work environments surveyed in the study include business and industrial sites as well as information centers and libraries in higher education institutions. The study, begun in 1977, is as yet little known in American Library Association and Association of American Library Schools circles, a situation not wholly attributable, I believe, to the fact that conference papers

and journal articles about the study are just beginning to appear. I would suggest that a study of information professionals in scientific and technical communication, one which does not focus specifically on libraries, is perceived to be of little significance to planning library education programs. At Pittsburgh we do not agree with such a perception, and manpower studies, or (as they are more typically called now) studies of human resources, are part of the research thrust of both the library science and information science departments of the School of Library and Information Science. Currently in the planning stages, for example, are studies of human resources which provide a base for designing the kind of library and information science education programs needed in Spain and of supply and demand for library and information science graduates in the United States.

I must agree completely with Carrión that in planning library and information science curricula we need to ask the questions she poses:

> Have the different national realities been analyzed? Are those courses [offered] the answer to them? Has the profile of the professional required been clearly defined according to national realities, be they librarians, information specialists or documentalists?[2]

I agree also with her conclusion that:

> . . . a practical way to start solid and lasting actions . . . would be to propose a methodology for analyzing national realities: identification of the present number of library and information services; number and educational characteristics of their staff; development foreseen in all information sectors (public, school, higher education and research institutions); resources available; expected growth. From an analysis of these factors, among others, would come a sound basis to identify the kind of people needed, either technician or professional, and thus adequate curricula could be developed.[3]

In describing the common or core curriculum currently offered in Latin American programs for information specialists, Carrión reports that five courses are most typically available: automation, information theory and cybernetics, research techniques, documentation, and communication. It is not clear if the communication courses offered emphasize audiovisual communication, mass communication, or human communication and behavior. If a behavioral component is lacking in the core curriculum, I would urge, on the basis of programs in operation at Pittsburgh since the late 60s and more recently in several other library and information science education programs in the U.S., that such a component be included.

Carrión indicates that there may be a need in Latin America for elaboration of two core curricula to meet national needs and realities: one at the

technical level, one at the professional level. A similar need exists in the United States and Canada but little attempt has been made through professional associations such as ALA and AALS or through library education programs to meet this need. Even the AALS Task Force on the Education of Non-Clerical Support Staff in its 1980 report concluded that it was unable to make recommendations due to the paucity of information and research on nonclerical (technical) support staff.[4]

One suggestion Carrión makes regarding technical training programs, that flexible modules be developed for basic subjects, need not be limited to technical training programs. In the U.S., library schools such as those at South Carolina, North Carolina, Illinois, and UCLA have developed and successfully used modules for core and, in some cases, elective courses.

A few final comments on Carrión's paper. I find little in it regarding a concept basic to a true "core" curriculum in library and information science; integration of the elements of librarianship, information science, documentation, and communication and behavior. In discussing the core curriculum for different training levels, technical and professional, Carrión does not specify the level of competence needed by today's library and informational professional. For all such professionals it would seem that competency is needed at least at what Allen Kent, Associate Dean and Chairperson of the Interdisciplinary Department of Information Science at Pittsburgh, calls the information science "literacy level." Such literacy includes three components: word recognition, taxonomy, and fundamental processes:

(a) Word recognition: this is the minimal level, at which words and terms may be recognized and defined, but not necessarily with a full appreciation of their significance.

(b) Taxonomy: this is the level at which the words and terms are understood with regard to interrelationships among them as to established librarianship; at this level the component activities comprising information science may be sensed.

(c) Fundamental processes: this is the level at which concepts, principles, processes, and component disciplines become clear, leading to the ability to read some of the literature with comprehension.[5]

For some information professionals "operational functionality" and "research functionality" competency levels would be required if they are to fulfill their roles in society, one which, at least in the United States, is increasingly being called an information society.

A final word of warning regarding costs. To educate today's information professional a heavy capital investment is needed to provide access for students to computers, on-line systems, and equipment that is fast becoming commonplace in the work environments in which they will be serving as information professionals.

FOOTNOTES

1. Anthony Debons, "A Survey of Manpower Requirements for Scientific and Technical Communication," NSF proposal DSI-7727115, 1977.

2. Guadalupe Carrión, "Changes in the Library and Information Science Curriculum: The Case of Mexico," Draft copy, p. 2.

3. Carrión, pp. 8-9.

4. Association of American Library Schools, Task Force on Education of Non-Clerical Support Staff, Report, January, 1980.

5. Allen Kent, "Information Science," Journal of Education for Librarianship, XVII (Winter, 1977), 132.

REACTION

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I would like to address the central issue that Guadalupe Carrión has raised in her paper, and which underlies her proposition of a core curriculum or rather two core curricula, namely: have we determined the subject knowledge that the professional librarian should acquire in order to perform within our social and cultural context? Education for librarianship in Latin America is confronting the same problems that have marked the struggle for the professionalization of library education in other more developed nations, and is going through similar phases--with a time lag of maybe ten to fifteen years. Thus, today in Latin America we find ourselves undertaking the same search for standards as the more developed countries did and confronting the need to define the principles of unity that would bind our educational programs into a cohesive whole.

There are, however, substantial differences in the problems and issues inherent to the development of librarianship in Latin America which give our library education a distinct character. These differences relate to the problems of national development, and we share some of them with developing nations of other regions. These problems include, to mention only a few: rapid demographic growth; the enormous gap between needs and the resources available for meeting them; widespread illiteracy; the lack of homogeneity; the wide difference in living standards between the urban and rural sectors; and the rising tide of urbanization and industrialization, which brings about far reaching social changes, such as the rupture of traditional cultural patterns and the formation of large sectors of marginal, economically deprived populations.

Among the issues confronting newly developing countries two in particular influence the evolution of our profession. One is the role that the library must play in the national education plans. Our national efforts to expand and improve education as a prerequisite to social and economic development force a close linkage of the library with education. In countries such as ours, where education is a primary concern and where resources are scarce, the investment

in library development can be justified only insofar as library services prove their worth in meeting educational expectations. Furthermore, the transfer of information in our region, where oral tradition prevails, makes it imperative for the librarian to interpret and facilitate the assimilation of material content, which goes beyond the mere handling and dissemination of information.

The second determining element is the concept of national planning and the inclusion of the library and information services as integral parts of the national development schemes. This planning, which in most of our countries must start with a consideration of how to establish the infrastructures of these services, requires the design and implementation of a plan for human resources development that encompasses different areas of specialization, several levels of competency, and various forms of instruction. These circumstances place the evolution of library education in a much broader context from the start and forces Latin American library educators, when considering the establishment of programs of study, to take a wider approach that includes the training of paraprofessionals and continuing education.

In view of these considerations, it is evident that the improvement of professional education for librarianship involves much more than mere changes in the curriculum on a sporadic basis, as is too often being done all over Latin America. The changes undertaken in each institution individually, usually do more harm than good. They often respond, as Guadalupe Carrión has pointed out, to the desire to keep up with new trends; they lead to misconceptions such as the establishment of a standard curriculum which rules out specialization and the satisfaction of local needs; they broaden the gap between librarianship, information and documentation; and they often result in duplication of efforts, and in confusion and mediocrity.

What must be encouraged is the launching of a curriculum design effort for library and information science. This effort should be carried out at two levels, regional and national. At the regional level a series of studies should be undertaken, sponsored and financed by inter-governmental organizations such as UNESCO and OAS, under the guidance and with the cooperation of such professional institutions as IFLA, FID, AALS, and ALEBCI. These studies should include the following:

1. An analysis of the demands that social and economic development place upon librarianship and information science and, consequently, a definition

of the social role that library and information services must play in Latin America, especially in the light of the educational demands. From this the general goals of library education should emerge.

2. The study and analysis of the issues involved in the planning of information systems as part of national development schemes, and their implications for library education.

3. Manpower studies and task analyses, which would identify and differentiate performance requirements. The development of a methodology of manpower needs which would permit job structuring and curriculum design.

4. The determination of broad basic areas of content and their organization into a curricular structure that could be called a "core" curriculum.

These studies, carried out as a joint regional effort, should provide the foundations, the theoretical framework for sound curriculum design, which must then be undertaken at the local level, by our educational institutions, in accord with their resources, characteristics and the needs of their geographical areas.

LIBRARY EDUCATION IN THE AMERICAS: THE UNITED STATES

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A wealth of material has been written about library education since the days of the Williamson reports in the early 1920s.[1] In the six decades which followed, librarianship has weathered bad times with little public support, prospered with major advances in service, and incorporated new disciplines as a result of modern technology. In the same period, the requirements for education have been broadened and made more demanding because of more complex duties and increased ethical responsibilities. Now, in 1980, the signs are clear that a general assessment of library education is needed within the context of strong social competition for monetary resources, lack of clarity in identifying where service is needed, a knowledge industry composed of interlocking private and public agencies, and the internationalization of knowledge. Major studies or books based on what has been done are not needed at this time. The professional knows what current practices are. Any studies that are needed should come after extensive discussion when the new signs can be read and understood more clearly.

Libraries and Information

Library education in the United States is highly pluralistic, and more than in the past is faced with the (a) conflict of the specialist vs. generalist, (b) proper type of entry into the profession, and (c) evaluation of acceptable (minimum) library training and performance. All of the other major professions are facing the same issues.

No small part of the difficulty faced by librarians in assessing the strengths and weaknesses of the present and the scheme of the future is that the definition of a library is becoming less distinct, as the amount of information increases and as that information becomes more complex in its organization and retrieval. Information appears now in many interrelated visual and aural forms; and the demand for information centers (libraries) is increasing rapidly, notwithstanding the problem of funding and failure to meet desired standards of performance. These centers already have markedly different characteristics and func-

tions, in that they range from meeting the general social and educational needs of the small community, to the necessity for major depositories in metropolitan cities for research data and preservation of the symbols of our culture, to the large number of small administrative units designed to handle and provide specialized data for business and government. These small units will increase in number and social value as knowledge management is recognized as an essential tool in organization and administration.[2] Indeed, there is a high probability that the 1990s and the first decade of the next century will be the era of the special library in all countries of the Americas, with their funding subsidized by both public and private sources.

Overlaying this multitude of different types of units are overlapping, conflicting, and competing system arrangements which give service ranging from the unique to the general and which are rapidly developing their own set of values and solidifying their independent role in the total complex. There are, furthermore, institutions committed to such varied library needs as research and development of physical tools, production of information (publishers), and education of those who will staff all of these components. Finally, there are the members of the public who have ideas on what services are essential and how they want to receive them.

One does not need to elaborate any more to understand that the commonality among these divergent services and administrative forms, for purposes of constructing an educational system, is becoming less clear. And yet, there is a cohesiveness in the profession, combinations of the components interrelate, and graduates with a similar set of courses may be employed after graduation for quite different positions. Part of this cohesiveness comes from two elements not recognized enough by the profession as being central to the profession: (1) ethical commitment to public ownership of knowledge and (2) a truly catholic intellectuality.

Those countries that are developing industrially as a part of the Third World are a microcosm of what is going on in the United States. Some of their facilities may not be as large as some in this country, but the same issues are there. These countries will jump over the intermediate stages of development which the United States has experienced to what is called the post-industrial society, but which for them is supportive of an industrial society. The jump will be soon and of a major magnitude.

Current Issues in Library Education

What, then, are the issues in library education stemming from the way in which the knowledge industry functions and is growing? A lengthy list could be cited, but several central ones appear to be most frequently discussed. All of them are interrelated and, in some cases, inseparable; and all are of interest to the countries of the Americas.

(1) The one fundamental issue in library education for all of the Americas is the task of educating students to be functional immediately upon accepting their first job and also to be functional at mid-career without extensive retraining by their employers. Some people will say this problem has always faced educators, and to a certain extent it is true. But the outline of what skills and intellectual capabilities will be needed in 1995 and 2005 is more open to question than the outline that was made in 1955 for the years 1970 and 1975.

Assuming no major economic or social upheavals, we will have to develop fundamentally different concepts of organization and administration and work; the need for knowledge will be redefined; and methods of dissemination will be more complex; and ethical considerations (particularly public ownership) will be paramount. These changes do not mean that the traditional library, as it is known today, will pass from the scene. But there is strong evidence that the present method of service will be only one of several that is economically and socially viable. What is most likely to happen is that the present institutions will become a base on top of and around which new complex structures will be built. For the present educational system, this environment results now in an internal conflict that has successfully evaded a resolution. In the short run, the need is for specialization in its true sense. On the other hand, the less clear that the future is the more emphasis that should be placed on training generalists who will be able to modify their behavior in accordance with changes in the environment. For at least the next decade, the conflict will become more intense each year.

But, in one year (requirement of the M.L.S. degree) can one pedagogically teach theory for the future and specialized practice for the present? If such can be taught, what kind of students can handle the conflict--will it be necessary to consider behavioral traits as well as intellectual ability?[3] Are the present faculty of library schools trained to teach both elements? Will a different form of undergraduate education have to be encouraged? There is always the

possibility that nothing more can (should) be done in a formal pre-service setting and that a new form of education as a function of continuing education is needed. This possibility is believed by many people in higher education; and there were implications of this belief at the 1979 ALA forum on continuing education;[4] full acceptance of it would mean shifting partly to service institutions as a cost of doing business. Although the substance of the forum's conclusions are correct and the need was assessed correctly, it is too early to conclude that the traditional continuing education should become a substitute form of education for librarianship; at the same time I have real doubts about the ability of the formal educational structure to adapt fast enough.

(2) A second issue concerns the faculty: do they have the training, resources, and institutional support to create and offer an educational program which prepares students for 1995 and still meet the immediate needs of 1980 to 1985? To pose this question is not to denigrate the faculty of library schools, because the same question is being asked in other professions; and leaders in education and the public are almost universally worried that too many faculty members in too many disciplines have been trained to teach only the conventional wisdom.

In an effort to avoid the intellectual incest that comes from a preoccupation with the present, the thrust in all professional schools in recent years has been to push for greater scholarship, of which writing and research are major elements. How far the thrust should go and what form it should take is less clear. There is admittedly a lot of dubious research in library and information sciences in the classical sense; and some subjects are worth only a certain amount of exploration before medieval scholasticism reappears. But if one says that the marginal point in library inquisitiveness has already been reached (where what is done is scholastic), one is really admitting that academic leaders do not have the capability in library education to lead and as a result must be led. It may also be accurate to say that some of those in library education who can lead are not doing so and are not clearing some of the "jungle foliage," so that others with more limited physical resources can follow and improve and develop. At the end of this paper some suggestions are made on what needs to be done in this respect; but at this time it must be noted that the thrust needs to be accelerated, defined more clearly, and better supported by the profession. The faculty of library schools must be the primary source of the scholarship, because, as I have stated previously, only a certain amount of library research can be done by out-

siders before the unique insights coming from the mix of library educators and practitioners are lost.[5]

Related to the thrust for scholarship is the age and tenure of faculty members, a problem that extends beyond the U.S. borders in the sense that no country is isolated. Most educators in the United States are aware that by the late 1990s, there will be virtually no faculty members under the age of 30 and very few under the age of 35--if tenure remains as it is and retirement is at age 70.[6] There is not much inclination to change the former; and economic pressures may compel almost everyone to work to 70. The problem is more severe in the professions, such as librarianship, because there is a preference for faculty members who have a terminal degree and several years of specialized professional experience (almost always preceding the degree). This experential knowledge is valuable; but it also has an observable negative impact, in that it often sets parameters to the thinking of a person which results in a form of intellectual tunnel vision and slowness in reacting to a new milieu. These parameters become more distinct and rigid to the extent that all members of a faculty have similar professional experiences at similar times in their careers. Also, unlike such professions as law, medicine, and accounting, there is virtually no way for the faculty member of the library school to practice his/her profession on a continuing basis.

Some way needs to be found to introduce into library school faculties younger persons who have a greater diversity of background and to assure that the practice or skills which are taught are taught symbolically or theoretically as ways to approach and analyze a service or activity, and not as the "final" way to do them.

(3) The role and training of the paraprofessional is another issue. It has provoked sufficient discussion and writing in the past that there is little need to comment in this paper, except to emphasize that the future discussion will be in a different labor environment--a general environment of balanced supply and demand, and perhaps even a surplus of labor and a certain amount of distrust about professionalism itself.[7] The concept of paraprofessional is sound for librarianship as well as for other professions in that it recognizes different levels or types of professional services. While not discussing paraprofessionals directly, Guy Marco described essentially the same thing in his 1977 article on a rationale for international library education.[8]

A series of questions best outlines this subject now. Is the function of paraprofessionals different in a shortage or surplus labor market? Should the profession take advantage of a favorable market situation and up-grade all services by redefining what is professional and what is paraprofessional? To what extent does the experience of the paraprofessional gained as an apprentice offset the lack of advanced formal education; i.e., is there anything that comes from advanced education which cannot come from experience except in very rare cases? While these questions are not new, the setting is different. If I were to express one alarm about library education in the United States, it is the fear that in an effort to democratize, the intellectual and ethical uniqueness of librarianship will be diluted; and paraprofessionalism will be defended almost solely on the basis that the complexity of work in certain areas, such as the small cities, is not enough to challenge or warrant any other type of personnel. It is one thing to say that a problem must be solved one way today and another thing to give that solution an unquestioned permanency.[9]

In short, although there is a type of personnel service which can be labeled paraprofessional, its role is becoming less clear along with some of the other changes in librarianship. It needs, therefore, to be reexamined as part of a total educational program; and in particular it needs a clearer theoretical base in light of the increased number of graduates at the master's level, greater accessibility of academic training, more emphasis on continuing education, more interest in the acquisition or demonstration of competencies regardless of the method of obtaining them, and the greater complexity brought on by the interrelationship of numerous different library units.

(4) Although much progress has been made, information science(s) is still on the periphery of formal library education in many graduate programs when it ought to be in the center for the study of all types of libraries and for administration.[10] A significant proportion of the profession in all of the Americas will need more than a passing understanding of the subject by the end of this decade. And by the end of the next decade, nearly all members of the profession will have to be functional in the information sciences. If they are not, personnel concerned directly with the organization and retrieval of material will be forced to separate and leave classical librarianship to classical librarians, which will be a loss to everyone--particularly the public. The gap between information science and communication theory and "library theory" is already so great that a major

effort will be needed by library educaiors to close it.

Librarianship in other countries needs to rise to this state of professional development at once as a major national priority, because scientific and technical information (including the social sciences) is rapidly becoming internationalized, and the primary need now is for selective rather than generic knowledge. Generic library service as a part of a general educational and cultural development is a separate project wherein administrative forms will be quite unique to each country, although there are more inter-country commonalities than are recognized!

The slowness to develop quality information science programs (curricula) stems from several factors: normal delay caused by competing groups at universities defining their area of expertise, high cost of implementing, pluralistic character of both hardware and software, lack of trained faculty in library schools, the profession's primary concern in the 1960s with the expansion of general public services, and the inclination of industry to be secretive about data.

To give information science the emphasis that it should have in the profession and to prepare for the next two decades, several illustrative actions can be noted which library educators need to consider: (a) Integrate information science into most courses, not just offer an information science course or two, as advocated in Targets for Research in Library Education;[11] (b) Train more of the present faculty and leading practicioners so that this integration can be implemented; (c) Recognize that faculty with expertise in this subject command a higher salary than for other specialties; (d) Recruit and support students who have special quantitative aptitude and skill; (e) Devise ways to develop (improve) quantitative skills in those students who show an aptitude for but are deficient in them. Overall, more emphasis on information science also means a greater emphasis on "special libraries."

Conclusions

The conclusions suggested so far are not meant to be negative or to imply that library education does not recognize the changes that are already being forced by and on the knowledge industry. Curricula, for example, are clearly more open than they were 10 years ago. Library schools are experimenting more with such varied disciplines as Law, History, English, Health Sciences, Chemistry, Education, and Geography. These degrees recognize fully the interdisciplinary nature

of library science and the importance of specializations. Although a significant number of the joint degree programs appear to be "on paper" with very few students enrolled, at this time it is the idea that is important.

Both breadth and specialization are being recognized, moreover, with the increased interest of employers (largely academic and research libraries) and library schools in the so-called "double master's." It is obvious that a person with two degrees, one professional and one substantive, adds a needed expertise in the practicing profession and provides another dimension to an educational program. One sees a similar interest in other professions in a graduate degree in administration where a substantive master's degree is the major qualification for initial entry into the profession. This trend, however, needs to be analyzed now to determine if it is in effect a new form of library education which library schools need to recognize formally, whether it reflects a shortcoming in the present educational programs, and what its full acceptance would mean for the future.

The long discussion about the sixth year program appears to be nearing the decision point. Hopefully, some critical insights will be forthcoming for review by the profession as early as March of this year (1980) in the special conference being sponsored by Columbia University. Although the "sixth year" is being accepted in Canada as an appropriate level of academic preparation, in the United States it is still considered experimental and has no theoretical home in either the practicing profession or in the schools. The fundamental issue is neither whether the cost of education would go up with the sixth year, because it obviously would, nor whether there is a body of knowledge that can be transmitted in this extra year, because there obviously is. The issues are whether the members of the profession view librarianship now and in the future as being complex enough to require or justify this training, what form the training should take, and how it can be provided at a high level of quality.

Doctoral education is established in the profession and in Academe and is recognized as needed and having quality. The number of degrees being awarded is large enough to turn library administration, practice, and education in one of several directions, all of them being to the good. However, the doctoral institutions have not exercised enough collective leadership in library education. With the unique perspective that comes from staffing for the D.L.S. or the Ph.D., it is they who need to promote a formal and open discussion which would lead to the articulation of a comprehensive program of education for the profession. The profession now has the elements of a four level program from the paraprofessional to

the doctorate, but these elements lack the cohesiveness and sense of direction that comes from a theory that integrates them, a theory that expresses a demand or or need or goal, and a theory of how the levels relate to each other for both the practitioner and educator. To say that these institutions must assume a greater responsibility than they have does not belittle the schools offering only the first professional degree. Indeed, the latter's status would rise by participating in the discussion and by having a better definition of their role; the clarification of one's role nearly always enhances one's prestige and status.

There is no need for more outside studies by the objective researchers to tell the public or the profession where the profession has been, where it is now, or the percent of people who believe what should or should not be done. There is nothing (and should be nothing) objective about defining one's role!

An element in the theory of an integrated program of library education must include a concept of international or comparative library education.[12] Knowledge is in a form now where it can pass across borders easily to meet special needs. And by the turn of the century, knowledge will be transnational--imported and exported almost as a product in an atmosphere of intense national competition. The full impact of the quantum leap being made in technological development and popular technological education in newly developing countries will be felt when the present generation is joined by the next one in the years 1995 to 2005. No country nowadays needs to wait while it builds the large research collections characteristic of the United States in order to have the data it needs for decision making or for popular education. Both can be initiated at once; and the initiation will have an impact on the organization, storage, and method of use of knowledge in this country.

A writer who discusses problems, deficiencies, and needs in library education should give the reader an overall assessment of its status. For this writer, in the fewest of words, such an assessment is one of optimism. Library education is sounder than some believe. It is more responsive than critics will concede. It is more deserving of professional support than it often receives. And it is capable of designing the second new order in the latter part of this century, if the leaders recognize that the task is important.

FOOTNOTES

1. C. C. Williamson, Training for Library Services: A Report Prepared for the Carnegie Corporation of New York (New York, 1923).

2. For a general background discussion of the subject, see Leigh Estabrook, ed., Libraries in Post-Industrial Society (Phoenix, Oryx Press, 1977) and the November-December, 1975 issue of Public Administration Review (vol. XXXV, no. 6).

3. I believe that behavioral traits will be considered more despite all of the risks involved. In both the public and private sectors in the United States, behavioral evaluation is being justified on the basis of greater efficiency in the use of human resources and as being supportive of individual growth regardless of the work situation.

4. American Library Association Forum on Continuing Education. St. Benedict's Center, Madison, Wisconsin, December 2-5, 1979. There was a clear consensus, for example, that librarianship is already a lifelong process of learning because of the fluid nature of the profession, that this process should be recognized by all ALA units concerned with setting standards, and that continuing assistance is needed in career planning.

5. This thrust is just as essential for the developing countries for both their own need and for the insights which they can give to the profession in the United States. For example, there are two excellent theoretical reports (unpublished) on library users and useage by Lic. Jesus Lau, Director of Library, Information Center for the Instituto Tecnológico Regional de Durango, Mexico, which would be beneficial for U.S. students to study.

6. Thomas M. Corwin and Paula R. Knepper, Finance and Employment Implications of Raising the Mandatory Retirement Age for Faculty, Policy Analysis Service Reports, Vol. 4, No. 1 (Washington, American Council on Education, 1978).

7. See Marie Haug, "The Deprofessionalization of Everyone," Sociological Forces, VIII (August 1975), 197-213. (Also reprinted in Libraries in Post-Industrial Society, ref. 1.) Haug concludes her discussion with the following comment: "It seems very unlikely that nineteenth century patterns of obesiance, trust, and awe of superior knowledge will persist. . . ."

8. Guy A. Marco, "A Rationale for International Library Education," International Library Review, IX (1977), 355-362.

9. This writer believes that competencies learned exclusively on the job have been proved by nearly all professions as not equal to a formal educational experience, notwithstanding the deficiencies of higher education. Acquisition of individual competencies does not mean there is the Rokeachian open mind, but indeed it is likely to reflect the opposite.

10. The importance of a complete integration of information science into library education was discussed extensively in the late 1960s by professionals such as Lester Asheim and R. C. Swank. In 1973 it was a major topic in Harold Borko, ed., Targets for Research in Library Education (Chicago, American Library Association, 1973).

11. Ibid.

12. Marco, loc. cit.

BASIC AND CONTINUING PREPARATION OF TEACHERS OF LIBRARY AND INFORMATION SCIENCE IN LATIN AMERICA

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Situation of Library and Information Science Education in Some Countries of Latin America

To write a paper on the situation of librarianship in Latin America is a difficult if not impossible task. The reason: there is little published in the literature; a systematic search in Library Literature and Library and Information Science Abstracts, covering the last five years, revealed nothing in the special area of library education.

In 1978 we tried to make a survey, asking library schools directly for information, but only six of thirty replied to our letter. Thus much of the information presented here is based on unpublished sources, often provided by friends.

As far back as 1972 William V. Jackson finished his paper "Library Education in Latin America: A Look Backward and Forward" stating, "Let us hope that when the 1980s begin we shall be able to look back upon the 1970s as a decade in which there was significant improvement in the quality of library training to the south of the United States."[1] Looking back ten years, I believe that we have seen significant improvements, particularly in Brazil, Mexico, and Venezuela--or at least we have more information on the field of library education in these countries. In Brazil particularly we can say that the face of library and information science was truly changed during this last decade; for details, see some of the comments later in this paper.

While the Jackson article is quite outdated with regard to Brazil, it remains partially valid for some countries and is still absolutely true for others, although almost ten years have elapsed since it was written. The final report of the Consultative Meeting on the OAS Programs for the Training of Librarians, held in Medellín, May 26-31, 1974, includes among its recommendations the formulation (by the Inter-American Library School, EIBM) of a quantitative as well as qualita-

tive survey on the situation of library education in Latin America. A project was presented for this purpose, but, to our knowledge, nothing came of it. Another recommendation in the document pertains to a better definition of the EIBM's role in Latin America; i.e., the need for the School to settle its objectives, plans, programs and activities in the field of research, nationally as well as internationally, and in relation to other OAS projects, courses, plans, etc. No information was found on any action resulting from these recommendations.

In his 1976 report evaluating the EIBM's performance, Briquet de Lemos concluded that Medellín's undergraduate program did not differ much from what is traditionally taught in other library schools in Latin America: a structure too rigid for the career, deficiencies in the basic cultural courses, technical course presenting a certain level of duplication and programs too extensive for some of them (e.g., cataloging).[2]

In a paper studying the situation of library education in Mexico, Licea de Arenas raises questions on such aspects as curriculum, methodology, staff and research.[3] On curriculum, she comments that "in examining the listing of the curriculum it can be said that the planning of library education in Mexico was made from the choice of disciplines which were believed to constitute a set of knowledge required by the professional." She mentions the distance between the theory and the practice that such curriculum enhances and suggests that the "learning process in order to be complete must be created from the reality to the theory followed by a strengthening of theory-reality." She proposes the design of a new curriculum on these bases:

1. Teaching in the classroom which translates real situation;
2. The integration of a larger body of knowledge in the cirriculum;
3. The study of real life situations should propiciate a compromise between them and the use of practices that will lead to their transformation.

To improve the methodology of teaching is pointed out as one of the major efforts that must be carried out by the schools; she comments on the fact that, maybe, the dissatisfaction of the employers with the librarians is that there is no methodology for training them, that is, the teaching of librarians was never the object of any previous training.

On the academic staff she finds a curious dilemma: in order to be able to efficiently transmit the disciplines the teacher has to acquire a specializa-

tion, but on the other hand, he/she is going to educate generalist librarians. She also comments on the low number of teachers that have full time positions, which "is grave, because full time is essential to keep adequate quality levels of teaching"; she goes on to add that "even in schools that have created enough full time positions, their teaching is far from satisfactory levels."

In one paragraph, Licea de Arenas summarizes the situation of research in library science in Mexico: "Due to archaic and traditional structures, rigid curricula, lack of teachers in the academic careers, deficient education of teachers in the methodology of research, and the isolation of the schools from the national reality, research is almost nonexistent."

In another paper, dealing with "Systems and Networks of Information in Venezuela," Björn Tell, a UNESCO consultant to that country, makes a special comment on human resources available to carry out the program he proposes for the development of the national information system. He says that the Library School of the Central University has around 300 students, yearly entrance of 40-50, and it takes 4-5 years to graduate a librarian; the University of Zulia has an entrance of 25-30 students. He concludes that Venezuela will require 3,000 librarians for the work necessary to develop the information system and, therefore, needs a "crash program" during the next ten years, as a permanent process of education in the area of information.[4]

In a 1974 paper titled "Current Problems in the Education of Librarians in Latin America," Roberto Juarroz delineates the critical aspects he sees in this area in exactly 24 points:[5]

1. Preparation and improvement of teachers in library and information sciences;
2. Imbalance and lack of articulation among curricula and programs of study;
3. Deficiencies in the methodology of teaching;
4. Lack of standardization of the curricula, levels and degrees;
5. Improvisation in the recruitment and selection of students;
6. Shortage of accessible texts and didactic materials;
7. The risks of the education abroad;
8. The poverty of the schools with regard to economic, human, bibliographic and audiovisual resources;
9. The more or less mechanical transfer of models from developed countries;
10. Inadequate answers to the need for preparing professional leaders;

11. Imperfect projection (of librarians) in their environment, and the lack of sensitivity of the environment toward librarians;
12. Lack of objectives based on authentic professional philosophy;
13. Lack of rigorous planning;
14. Damages caused by the political instability in the countries of the area;
15. Lack of scientific rigor and hollowness of research;
16. Lack of a comprehensive and solid preparation of the librarian to enable him to engage in dialog on equal terms with other specialists in other areas, as well as efficiently to occupy leadership positions and face the decisions such positions require;
17. The burden represented by the personal interests of many librarians, whether graduate or not, given the opportunity to establish more comprehensive programs of teaching in librarianship;
18. Limited or poor salaries, as well as the low status of the profession, aggravated by the nonexistence of appropriate legislation, which hampers the stimulus and attraction of candidates;
19. Demagogy in teaching;
20. The ideological sectarization of some groups and the consequent pressures, lack of established principles, and confusion;
21. Lack of assimilation, on the part of the schools, of the rapid changes occurring in the organizations that operate with information, as well as the impact of the appearance of such disciplines as documentation, informatics and information science;
22. Limited adjustment to social, scientific and technological transformations;
23. The frustration, technicism and "naïveté" of librarians, as by-products of routine teaching and partial education;
24. The urgent need for enlargement of professional awareness and of the inquisitive and open spirit on which it should be based.

In the final report of the Latin American Meeting of Directors of Library and Documentation Schools, held in Bogotá, Colombia, in 1976, several recommendations were directed to the following aspects of education for librarianship:[6]

1. For the OAS to review, enlarge and update the "Rules for Library Schools";
2. For the schools to arrange for a minimum of full-time teachers through measures taken with the competent authorities;
3. For the schools to insure a larger number of scholarships for graduate studies, with priority for those in the academic career, by exerting pressure on their own institutions, the government and international organizations;
4. To establish programs for preparation and improvement of teachers at national as well as regional levels, the schools developing programs

with the College of Education, and, through ALEBCI and other institutions interested in these areas of library and information science, to provide the school with better conditions to organize a program for the permanent education of teachers of library and information science in the Latin American schools;

5. That ALEBCI, as coordinating organization, study the possibility of establishing a program for the exchange of teachers;
6. That ALEBCI compile a directory of teachers of library and information science in Latin America, including all information for the development of common programs;
7. For the schools to arrange with the authorities the means for teachers to attend meetings, congresses and specialized courses;
8. For the schools to establish institutional seminars in which each teacher could report the advancements in his/her area of specialization;
9. For the schools to establish a research plan according to their needs and resources;
10. According to this plan, to arrange the mechanisms that will make it possible for several faculty to teach fewer class hours, dedicating some time to research;
11. To make authorities aware of the need of sabbatical leaves for doing research;
12. The schools must put emphasis in the preparation of mechanisms for evaluation, including self-evaluation and that of students, according to the general criteria of each institution;
13. For the schools to motivate students' participation in their activities, so that they will not only be the receptors but also the main channels for academic and administrative change and innovation;
14. The schools must establish their special libraries, with ALEBCI preparing minimum standards for the development of a basic collection in library and information science;
15. For the schools to promote the creation of laboratories for the practice of librarianship, establishing cooperative programs for the use of duplicates, withdrawn materials, etc.;
16. That OAS support a project for translation, adaptation, production and distribution of educational materials;
17. That UNESCO and ALEBCI make a survey of the resources in library and information science available in Latin America, so that UNESCO could support the creation of documentation centers in these areas or strengthen existing centers with the best collections;
18. That schools establish a communication network through information bulletins, lists of accessions, and listing of publications, for the maintenance of a permanent exchange of these materials;
19. That the national organizations in charge of the development of these areas, in association with the schools, establish courses, seminars, and

conferences utilizing the human resources available in the country; these activities should be preceded by studies of the needs of each region;

20. It is the responsibility of the schools to create programs for better training reference librarians for dealing with users;

21. For the schools to determine their objectives: general, educational, research, extension services, defining the type of librarians they want to graduate, and in which specialization; in view of the social and institutional environment, establishing the qualities that such professional should acquire in the school;

22. Every country in Latin America, with the support of organizations in charge of planning for scientific, technological, cultural, educational, economic and social development, and with the participation of the Library Schools, should perform valid studies of the demand for human resources for library and information science services;

23. The schools should make studies determining the profile of the librarian they want to graduate, establishing the different levels of professionals;

24. The education of the librarian in Latin America requires a minimum of four years of university studies; according to each country's need, the establishment of an inferior level can be considered, but it must be structured in such a way to permit further studies at the university level. Courses to prepare library technicians can be established in state or private organizations, under the coordination of the library schools;

25. The graduate level must be established when it responds to a country's real needs, and its lines of specialization should follow the results of a previous study of demands for library services, given the National System of Information;

26. That each country, in view of its own needs, study with special care the possibilities and desirability of creating special programs for those with degrees in other areas than library and information science;

27. Special courses for the preparation of professionals in priority areas should be coordinated by the library schools;

28. The schools should pay special attention to the improvement and updating of professionals, through permanent programs for continuing education;

29. That UNESCO support a study of the present curricula in library and information science, leading to the concrete formulation of a curriculum that could serve as a model for all the schools in the region.

Situation of Library Education in Brazil

According to Brazilian laws, only those with bachelor degrees in library science can teach in library schools--though this is not always followed in practice. The only degree in information science available is at the graduate (master's level) a IBICT's course in Rio.

Therefore, in order for us to examine the situation of the "Basic and Continuing Preparation of Teachers of Library and Information Science" in Brazil, it is first necessary to analyze the general state of library education in the country. For this we have to turn to a survey[7] undertaken late in 1977 and published in 1978. This survey, sponsored by CAPES (the Brazilian governmental agency for financing graduate studies), was carried out by the coordinators of the graduate courses in library and information science. An abstract of the findings follows:

The collected data cover 28 schools; only one school failed to answer the two sections of the questionnaire on time, and two others did not answer the section concerning the parent institution.

The tabulation showed that the number of schools increased greatly (by 18) in the last two decades. During the sixties, the majority of the schools created were in the north, northeast and central-west parts of the country, which were regions not served by the 8 previously existing schools. The decade of 1970 has been characterized by a growing number of schools in the southeast and the southernmost states, mostly private schools in the interior.

The academic activities of the schools are still very limited in number and caliber. Extension courses, research projects, and community involvement are rare and of low level, with no continuity or planning ahead.

While student enrollment has been steadily growing, it still reveals a marked predominance of women entering the profession.

The majority of the schools are located within a university environment, but there are quite a number, particularly private schools located in the interior, which are within the environment of colleges. Teaching level was considered generally low and inferior in the case of the schools established in the interior. This fact presents a serious problem, because these schools are the key elements for the development of the profession outside the large urban centers of the country. It also means a suitable environment for continuing professional education is not available for graduates.

The teaching staff varies in number and qualification, but consists of women and part-time personnel. There is a growing tendency to improve the quality of teaching staff by providing access to courses at the graduate level in this country or abroad; also, it was noticed that there are many librarians with a second bachelor's degree, generally in the area of humanities.

There is almost no mobility of the teaching staff. This has resulted in a high degree of inbreeding in many schools, as well as a lack of "new blood," as age groups are quite homogeneous, mostly between 30-40 and over 40.

Library support for the programs also varies. A few declared that they just needed supplementary collections. The majority lack practically everything. Some even do not have the collection of the Brazilian periodicals specializing in the field.

Equipment and facilities available to library schools follow the same trend. Only a few said that they are in no need of more space and/or equipment, while some others declared that they are still waiting for minimal changes to provide the necessary space and equipment. The majority need more space for offices, classes, staff, commons room for students, seminar-rooms, laboratory, etc., as well as equipment--from typewriters to film projectors.[7]

In view of these results, or the general picture of the situation of library education in Brazil, as demonstrated by the survey, several recommendations were made.

A. Recommendations to the Library Schools

1. To make efforts to improve teaching, even by adding more credits to the course, which then could take four years, instead of the usual three at most schools. These added credits should include required cultural disciplines and stress language study.

2. To establish adequate goals and objectives and to try to reach the minimum standards in the performance of their activities, through self studies pointing out the major strong and weak points.

3. To carry out surveys for evaluating the local need and demand for library services, as well as studies of the situation of former graduates.

4. To establish cooperation among the schools, the stronger ones in the region supporting the others, on the basis of supplying bibliographic materials, providing short courses, conferences, seminars, lending teachers for short periods, etc. Leading these activities should be the school with the graduate course in the region, besides providing extension and specialization courses.

B. Recommendations Concerning the Staff

1. To avoid inbreeding when developing their staff.

2. To demand training in teaching (formal course on pedagogy, didactics, etc.) for their staff, both old and new.

3. To take steps in order that, in a period not superior to three years, they can have 2-3 master's level people working full time.

4. To initiate a more dynamic process of recruitment of young, capable and motivated instructors.

5. To provide specialization courses not only for their own personnel but also for other teachers in the region.

6. To motivate and facilitate dedication to research by the staff.

7. To emphasize the need for training in English for their staff. [7]

Analyzing the situation of graduate (master's level) courses, there are, currently, five courses in library and information science in Brazil. The first one was established at the IBBD (Brazilian Institute for Bibliography and Documentation) in Rio, in 1970, in the area of information science. Since its inception this course has been oriented to the preparation of graduate teachers, researchers, and higher level professionals for the specific activity of operating information systems. In 1974 the course was restructured to stress the education of researchers in information science, and three areas of concentration (or specialization) were established: Users, Administration of Information Systems and Documentation, and Information Transfer (the last having mathematical and statistical approaches).

After IBBD became the Brazilian Institute for Information in Science and Technology (IBICT) this course underwent other alterations with a view toward increasing flexibility: the area of "Users" was eliminated and its disciplines made optional for the other two areas. This seemed to provide the institution with better conditions for offering the course, as well as to bring it closer to its objectives, Brazilian rules on higher education, and the available resources. To date, approximately 60 dissertations have been defended.

The course at the Federal University of Minas Gerais, in Belo Horizonte, started in 1976 and has two areas of concentration: (1) Library and Education, and (2) Library and Specialized Information. The first area aims at preparing librarians who will be involved with formal education (school libraries) and community services (public libraries) and the second at preparing planners and

administrators for specialized information transfer.

The course at the Catholic University in Campinas, State of São Paulo, opened in August 1977, offering the area of Methodology for Teaching Librarianship. It is directed exclusively to those already possessing bachelor's degrees in library science and hopes to enroll students from Latin America. It places great emphasis on educational disciplines and poses the following question: What kind of librarians are being prepared, at the master's level, with no further studies on the theories and current techniques of library and information science than those they had at the bachelor's level?

The course in Library Science and Documentation at the University of Brasília started in March 1978, with two areas of concentration: (1) Planning, Organization and Administration of Information Systems, and (2) Resources and Techniques of Documentation and Scientific Information. The objectives of this course are to provide for better training of the librarians and to be attractive to those with bachelor's degrees in other fields. It is oriented to the development of professionals able to bring an original and creative methodology to problem solving.

The course at the Federal University of Paraíba, in João Pessoa began in August 1978 and concentrates on Systems of Public Libraries. It is intended to prepare teachers to improve the education for librarianship and high level specialists for the planning and management of public library systems.

As a general observation, it must be said that the establishment of these programs did not follow previous planning or coordination, but rather each was set up according to what was felt was needed in the particular region. Although the courses, with the exception of the one in Campinas, try to attract graduates from other areas of knowledge, the great majority of students are still librarians with the bachelor's degree; on the other hand, there is a tendency, already mentioned, for librarians to pursue master's courses in other disciplines.

It can also be observed that the major line of these courses are studies in the field of administration, as applied to libraries and information systems. The intention is to graduate high level specialists and administrators who will be able to discuss solutions to demands for information with the top political and administrative echelon of the government and who will have the capacity to provide adequate services in technical and managerial positions.

There are just a few persons holding the Ph.D. in Brazil (two concluded their work in the U.S.A.). Others achieved the degree of "Titular" through defense of theses, and many others (around 20) are in the process of acquiring advanced degrees in the country or abroad.

The coordinators of these five courses have already felt the need for better coordination. Two meetings have been held (a third one will take place in December 1979) from which these recommendations were made:

1. Promotion of a permanent exchange among the graduate courses, through periodical meetings, correspondence and a bulletin;
2. Incentive to the exchange of teachers and students;
3. Invitation of professors from abroad who could be beneficial to the different courses;
4. Exchange of information for the improvement, development and accessibility of the bibliographical resources;
5. Major efforts for attracting professionals from other areas;
6. Studies on the information professional and the uses of information;
7. Analysis of the curricula in order to identify common areas, establish terminology and make possible exchanges, as mentioned above.[8]

Indeed, much more effort is needed for the courses to operate in complete coordination and cooperation. Among the obstacles to be overcome are the reduced number of staff in some programs, which limits cooperative feelings; formal barriers, bureaucratic and other ; and, last but not the least, financial support for cooperative activities--for which there never seem to be funds available.

It does appear, however, that the graduate programs in library and information science are to have better times when, in the next two to three years, those teachers who are now abroad will be returning to their schools. This will solve the most difficult problem faced: the lack of qualified staff.

Another important development in Brazil, in the last few years, is the study being made for the implementation of a new curriculum in librarianship. The present basic curriculum was established by the Federal Council on Education, Ministry of Education, in 1962. It comprises the following disciplines: history of books and libraries; history of literature; history of art; introduction to historical and social studies; evolution of philosophical and scientific thought; organization and administration of libraries; cataloging and classification; bibliography and reference; documentation; and paleography.

For several years now Brazilian librarians have been trying to modify this curriculum, considered obsolete by many when promulgated. Some concrete studies have been made these last two years, under the leadership of the Brazilian Association of Library and Documentation Schools (ABEBD). There seems to be a consensus, if one can extrapolate from the analysis of the literature on the subject and the results of discussions and meetings among the schools, that the new curriculum should embrace four aspects:

1. The definition of the type of professional the school should graduate, according to the national demand (generalist vs. specialist);
2. Provision for regional diversification, plus responding to local needs for library services;
3. Provision for a balance between the social vs. technical functions of the librarian;
4. Identification of what kinds and amounts of training should be provided at the undergraduate vs. the master's level program. [7]

The objective would be for the graduate course to be oriented toward preparation of high level professionals, teachers and researchers, while undergraduate courses should prepare mid-level professionals to perform the library routines and to head small libraries or units of large libraries. Library technicians are currently and will continue to be prepared in short courses delivered by some of the 22 Library Associations throughout the country, as well as by initiative of the National Book Institute (INL), when needed.

According to this consensus, the basic curriculum could be detailed as:

1. Information system and social environment;
2. The consumer of information--the user;
3. Planning and administration of information systems;
4. Registering information (the producer's unit);
5. Acquisition and organization of information;
6. Retrieval and dissemination of information.

The course content should be:

1. Social role of the library

   Communication theory; the process of social communication. Information systems and the Brazilian economic, political and socio-cultural situation. Methods of social research.

2. Users' study

   Need and use of information. Characterization, attitudes, behavior, user education.

3. Planning and administration of information systems

   National planning. National policies for educational, scientific and technological information. Library development planning. General theory of administration. Organization and methods.

4. Sources of information

   Generation of information: persons and corporate bodies. Sources of information: primary, secondary. Book market: publishing, standardization. Information control: national and international agencies responsible for the production of bibliographies, catalogs, indexes and other instruments.

5. Selection and acquisition

   Principles, sources and methods of the selection and acquisition of materials.

6. Organization of information

   Registration of document. Analysis of the content and form of representation. Indexing languages, including cataloging and classification.

7. Retrieval and information transfer

   Reference service, processes for the retrieval and dissemination of information. [7]

Another important document issued by the Brazilian government, besides that of CAPES, was a study made by a group of specialists in library and information sciences for the Brazilian Research Council (CNPq) and published in 1978. [9] This document analyzed the situation of teaching and research in these areas, offering reflections on the obstacles to development, and presenting suggestions and recommendations for improvement.

Among several observations, the lack of human resources, both quantitatively and qualitatively, was judged to be a major obstacle for research and development. Also recognized was the fact that having full-time teachers does not mean that research will be performed. There are other factors in research and development activities: the weekly classroom hours for which the teacher is responsible; knowledge of research methods; the availability of bibliographical resources; and mainly the awareness that research is linked to teaching, even at the undergraduate level.

Other obstacles mentioned were the limited production of bibliographical materials and the limited degree of autonomy of the institutions--information personnel never have a direct line of communication or ease of contact with the higher echelons of administration. A major factor hampering development in these

areas is the lack of an investigative and critical spirit, leading to a tendency of adopting standards and techniques alien to our own needs.

This, then, is the portrait of graduate level work in library and information science in Brazil. A first, general, recommendation made was for the strengthening of the graduate courses, which should direct their lines of research to the solution of national problems.

Specifically, these recommendations imply that the government has to:

1. Facilitate the absorption of qualified people (masters and doctors) in graduate programs by granting financial support for these courses;
2. Implement a Ph.D. program in Brazil attracting candidates from diversified disciplines;
3. Establish a national program for the exchange of students and teachers among the graduate programs;
4. Facilitate leaves of absence and financial support for professional librarians who are working in government institutions and apply for graduate study in Brazil or abroad;
5. Provide financial support for research;
6. Improve the libraries of the graduate courses, by providing financial means to acquire materials abroad, mainly research reports, theses and dissertations, and periodical files;
7. Implement programs to stimulate the production and distribution of Brazilian professional literature in the areas of library and information science and to strengthen the periodicals (5 titles) already in existence.

It should be mentioned that both cited documents (CAPES and CNPq) and the study of the basic curriculum were prepared before the change of government in March 1979. Therefore, one cannot predict if or when implementation of the ideas, suggestions and recommendations expressed in those documents will take place.

Nonetheless, it must be also said that in these last few years the Brazilian financial agencies dealing with graduate programs in other disciplines have made several analyses and evaluations of them, similar to those cited in library and information science. The situation described was not very different from the picture for library and information science. As a result of these studies, a widespread feeling is emerging that "a revision of the model of graduate studies in force in Brazil," is needed, because the "existing model is inadequate for the solution of our national problems." An official, detailed internal document published by CAPES at the end of 1978 points out that transferring the total burden for the preparation of teachers for higher education to the graduate courses

might not have been the correct solution after all. This created a "chaotic situation" in those centers, resulting in mediocre performance and low productivity.[10]

General recommendations made were directed for the creation of training programs for technical personnel (librarians would be in this category), for a larger number of specialization courses, and for these courses to be more compatible with institutional and regional realities.

Specific recommendations for the preparation of teachers were made as follows:

1. Better coordination among the federal institutions involved in higher education in the country;
2. Establishment of consortia among the universities;
3. Establishment of special links with international institutions of renown, to guarantee the excellence of work and scientific awareness;
4. Establishment of "Centers of Excellence" in the areas of Technology and Bio-Medicine, for consolidating national leadership in these areas;
5. Education of teachers abroad for these Centers;
6. More incentives for research;
7. More courses in the professional areas;
8. Closer work between CAPES and graduate programs for decisions on the problem of over-all control of graduate education;
9. Better relationship between theory and practice in the curricula of any area;
10. Teachers' salaries compatible with market demand;
11. More attention to replacing teachers who leave for further education abroad;
12. Effective planning of needs for teacher training;
13. More study of the problem of inbreeding.

Another internal document, published last August by the new CAPES director, follows that same line and makes similar statements; this gives an idea of some of the probable new guidelines of that institution: the return to the idea of regional centers for graduate level teaching in priority areas and the strengthening of the livre docência (a post doctoral degree for the professional areas) to improve teachers' training. Other agencies financing higher education could adopt similar guidelines.

The document suggests the reinforcement of the courses of specialization, progressively phasing out some of the master's courses in the professional areas and arts where there is little demand for teachers. A combination of specialization and master's courses is also suggested.

The main idea would be to concentrate primarily on supporting teachers of fundamentals and disciplines at the bachelor's level, as well as on small institutions away from the larger centers, where there is a concentration of teachers holding only undergraduate degrees. The absence of these people from their positions for long periods of time is not viable, and their motivation is generally not strong enough for carrying through with the intellectual burden demanded by a master's course.

A survey of the scientific production generated by the universities is recommended as well as an attempt to make scientific production compatible with national and regional priorities.

Conclusions

The extensive and detailed listing of recommendations on what to do in order to improve library education in Latin America was purposeful. The set of Brazilian documents and studies is impressive, and locates exactly the state of library and information science education and practice in Brazil: at a crossroads. In this regards the situation is the same in all Latin America, as the previous listing of recommendations has shown. This listing has also served to prove that there is a consensus among the librarians that THERE HAS TO BE SOME IMPROVEMENT IN LIBRARY EDUCATION IN LATIN AMERICA AND THAT THERE ARE DOZENS OF DIFFERENT WAYS FOR DOING SO.

It could be observed that there are many points in common in all those documents, the main ones directed to changes in the curriculum, including different levels for preparation and career flexibility for the professionals; improvement in the training of teachers, including training in the methodology of teaching; the need for professionals; the need for evaluative surveys of the library schools, including publication of directories and study of the former students; strengthening of the basic cultural background of the librarians, etc.

These points can be summarized as follows: the need for improving the professional librarian is highly recognized, and this improvement has to be made via the improvement of the education of teachers in library and information science. There are several ways for improving the training of teachers and professionals in librarianship: by strengthening the undergraduate courses in every possible way as demonstrated; through courses of specialization or through special courses (e.g., on the methodology of teaching and of research); and through graduate programs.

In Brazil, many of the recommendations of the Juarroz document and of the Bogotá meeting have already been met. Other steps, though, are being taken to fulfill some other recommendations, as for example, the OAS project which I am coordinating at the University of Brasília.

This project seems to encompass some of the recommendations made in the earlier documents, as its objectives are to provide financial support for the following:

1. A seminar on user's need (for surveying demands for library services);
2. A seminar on curriculum development;
3. A course on teaching methodology in library and information science;
4. A course on planning library development.

The concept of this project was to provide the means for the development of the curriculum in library and information science based on the study of the user's need for library services in Brazil; that is, a curriculum compatible with the national demand for library services (and not only a choice of disciplines made by some group of so-called specialists).

These two seminars may be visualized as the long range plan of the project. The short range plan is to offer different courses, and it is directed not only to improve the professionals and teachers, but also to try to fill, as quickly as possible, the gap that exists between the new breed of librarians and those already in the field (for 10-20 years) and occupying senior positions. The OAS project will continue in 1980 with other courses, while the seminars will follow advanced phases according to plan. The experience of coordinating this program has shown that it is very difficult to proceed with such a project, limited by the boundaries of a department and the tremendous bureaucracy of a university, apart from having to rely on the willingness and capabilities of other departments in other universities in order to house the activities.

The best solution for the continuation of these needed activities would seem to be the establishment of a national center, financed by national as well as international agencies, which would plan, coordinate, and supervise all of the country's continuing education in library and information science.

This measure would not only give a much firmer basis for the operation of the activities, but, more importantly, would provide a chance for an expansion of these activities and open them to other Latin American countries which have the

same need to strengthen and improve library and information science.

With the creation of a national center, we could envisage the following expansion of the activities (besides offering more courses, executing evaluative studies of the schools, and making special studies and surveys, etc.):

1. Special courses for strengthening the cultural background of the librarians; this could be achieved by taking full advantage of the academic environment of the schools, organizing multidisciplinary seminars making use of specialists in different areas for lecturing and providing basic reading lists which could be supplemented by the center. These seminars would focus on new ideas and current trends in the different areas of knowledge.

2. Complementing the assessment of the needs for library services, through the user's study, the center could carry out surveys of the needs of employers, including head librarians, and studies of the former graduates, learning their criticisms of the course/school. The data thus collected, together with that of the user's study, could provide the basis for change and innovation in the curriculum, according to present needs.

3. Also, from these collected data, standards could be established for the schools and over-all education for library and information science; these data could be translated into guidelines for services to be rendered by the different types of libraries in the country, as well as establishment of minimum standards for the accreditation of library schools.

4. Parallel to this, another special program could be established for sending teachers and professionals abroad for six months to take specially designed courses in needed areas. The purpose would not be to earn a degree but to combine experience and class instruction particularly related to the special needs identified in the long range period of the project, and not yet possible of being fulfilled with the resources available in the country. The natural candidates for this program would be teachers and professionals distant from large centers and for whom there is no need or motivation for a full degree.

5. The data gathered by the center would make it possible to initiate research leading to feasible national solutions for identified library problems, according to the country's own needs, resources, and demands.

The "crash program" recommended by Björn Tell for the development of human resources for library services in Venezuela seems to be highly applicable for the whole of Latin America. And for a project of such a magnitude it would be necessary to count on the support of a national center and the involvement of international organizations interested in the areas of library and information science.

FOOTNOTES

1. William V. Jackson, "Library Education in Latin America: A Look Backward and Forward," In: Library History Seminar, 4th, Proceedings (Tallahassee, Florida State University, 1972).

2. Antonio A. Briquet de Lemus, "Informe de actividades desarrolladas en la Escuela Interamericana de Bibliotecología" (Medellín, 1976) (typed).

3. Judith Licea de Arenas, "La educación bibliotecológica en México: consideraciones sobre algunos de sus problemas," In: Jornadas Mexicanas de Biblioteconomía, 9., Mérida, 1978.

4. Björn Tell, Sobre sistemas y redes de información en Venezuela (Lund, Universitetsbiblioteket, 1978).

5. Roberto Juarroz, "Problemas actuales de la formación de bibliotecarios en América Latina" ([Buenos Aires 1979?]) (typed).

6. Encuento Latinaoamericano de Directores de Escuelas de Bibliotecología, Bogotá, 1976. Informe Final (Bogotá, División de Documentación e Información, ICFES, 1977).

7. Nice Menezes de Figueiredo, ed., O ensino da biblioteconomia no Brasil; relatório de equipe de pesquisa sobre o status quo das escolas de biblioteconomia e documentação, com enfase na situação do pessoal docente (Brasília, CAPES, 1978) (3 vols.).

8. Abigail de Oliveira Carvalho, "Pos-graduação em biblioteconomia e ciência da informação; reflexões, sugestões, experiências," Revista da Escola de Biblioteconomia da UFMG, VII (1978), 289-309.

9. Brazil, Conselho Nacional de Desenvolvimento Científico e Tecnológico, Avaliação e perspectivas: ciência da informação, biblioteconomia e arquivologia (Brasília, Conselho Nacional de Pesquisas, 1978), v. 9, pp. 47-64.

10. Brazil, Ministério da Educacao e Cultura, Coordenação do Aperfeicoamenta de Pessoal de Nível Superior (CAPES), Relatório das reuniões de avaliação do PICD (Brasília, CAPES, 1978) (mimeographed).

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Reunión de Consulta sobre los Programas de la OEA para la Formación de Bibliotecarios. Informe Final. Washington, D.C., Organización de los Estados Americanos, 1974. (Cuadernos bibliotecológicos, 63).

REACTION

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My first comment on the paper presented by Professor Figueiredo is to mention a library school not included in her study. I refer to the Graduate School of Library Science at the University of Puerto Rico. In order to rectify this omission, I should like to point out our efforts to be of service to nations which are, in the cultural sense, sister republics. With this purpose we have participated in the training of Latin American librarians, among them some Brazilians, Colombians, Costa Ricans, Chileans, Dominicans, Ecuadoreans, Guatemalans, Panamians, Paraguayans, Peruvians, and Venezuelans as well as nationals of the Virgin Islands and naturally of Puerto Rico. Let me point out that the majority of these professionals occupy important positions in their respective countries.

A general overview of education for library and information science in Latin America uncovers a basic problem: the small number of persons dedicated to these tasks. Another fundamental aspect is the dubious training of a large number of those persons involved in this educational labor. The lack of physical facilities and the scarcity of teaching materials further aggravate the situation, which is reflected by inadequate professional tools and by the almost complete absence of research.

We share the opinion expressed by our Brazilian colleague and, as a possible solution, propose an emergency plan aimed at preparing teachers for this critical area of librarianship. We emphasize that it is necessary for this program to provide future instructors with a familiarization with basic local needs, beginning with a clear understanding of cultural, political, administrative, economic and social aspects and strengthened by expertise in professional theory, technology, and practice--elements which assure proper diagnosis of national information problems and provision of suitable alternatives for their solution.

Once we have provided more adequately qualified teachers our next concern should direct itself to planning training programs which will satisfy, in a realistic way, our particular exigencies.

Experience dictates that we should establish the following levels of education: (1) library assistants; (2) technicians; (3) librarians; (4) teachers of information science. The first level should emphasize public services with a minimal understanding of technical services and administration. The technician level will fill the need for trained personnel in the area of description of materials as well as other library routines, including facility in using the computer.

Perhaps the librarian should change his title--so full of negative connotations derived from an ambiguous understanding of his role, as well as being far removed from his expected mission in today's world. We suggest a term free of the traditional meaning, a meaning which continues to restrict and hinder the development of the profession in our countries; we offer the possibility of "Information Scientist." Certainly a new terminology must reflect a new philosophy, otherwise we shall be unable to enhance our professional status and consequently we shall have failed in our social obligation, which is the promotion of information services. This third level necessitates study in the university, a master's degree, as well as skill in the practice, theory, and administration of information services, along with specialization in another field of knowledge, and a basic competency in research techniques.

The fourth level should cover all of the aforementioned requirements, coupled with a strong responsibility for research, production of professional tools and teaching materials, curriculum design, and the solution of problems or the search for alternatives. These persons should be trained in other related areas, such as communication, statistics, administration, pedagogical techniques, and computer science.

It is also worthwhile to consider a combined effort through programs flexible enough to offer specializations in library science and in archives management. I should like to stress that I do not favor at all a combined degree along the lines of past experience. What I propose has a different perspective, and its purpose is to solve analogous problems through a combined effort in order to save, protect, and diffuse information--a national resource, a necessary element of our value system, and a solid contributor to the improvement of mankind and the basis for respect and understanding among nations.

BASIC AND CONTINUING PREPARATION OF TEACHERS OF LIBRARY AND INFORMATION SCIENCE IN THE UNITED STATES AND CANADA

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Introduction

The most acceptable route to a career as a library and information science educator in North America today is first to obtain the master's degree in library science, followed by two or more years work experience in one or more libraries and then to acquire the doctorate, preferably in library and/or information science. A steadily decreasing number of individuals remain in library education who entered prior to the general acceptance of the Ph.D. as an essential prerequisite to full-time faculty status. A few individuals enter the library education profession with doctorates in closely related fields (such as education and communications), and a few others with doctoral degrees in the humanities, social sciences or even the sciences. Some manage to enter the field without previous library work experience. And even today, a very few of our colleagues without the doctorate enter the field, based upon their contribution to research, technological development, or practice.

The two factors which explain the largest part of the reasons for requiring the doctorate for entrance into the field are found in first, the very fact that most library schools are units within graduate schools and second, the Standards for Accreditation, 1972. "The School should have a corps of full-time faculty members, academically qualified for appointment to the graduate faculty within the institution . . . ."[1] In most institutions faculty members may only be appointed to the graduate faculty if they hold the doctorate. The route to appointment to graduate faculty membership outside of academic credentials is research accomplishments; it has been amply discussed and documented by Boaz, Wilson and others that research accomplishment is not a descriptor applicable to even a substantial minority of library school faculty. As if in recognition of these facts, Standards for Accreditation call for "interest, ability and effectiveness in teaching"[2] but merely "aptitude for research."[3]

The purpose of doctoral programs is to develop indepth knowledge and to qualify candidates to do research; yet, the certification they provide in the form of the Ph.D. is essential for teaching positions. Few doctoral programs in librarianship or other fields including even education make provision within their degree requirements or opportunities for preparing teachers per se. The paradox is evident.

Library and Information Science Doctoral Programs in the United States and Canada

There are presently 23 institutions which offer doctoral programs, Ph.D., D.L.S., D.A. in library and/or information science in the United States. (The State University of New York at Buffalo is an exception for it offers the doctorate in Higher Education with a concentration in library science.) These institutions are geographically dispersed throughout 15 states. Eight programs are located in the northeast in New York (3), New Jersey, Massachusetts, Maryland, and Pennsylvania (2). Two are in the southeast, Florida and North Carolina. Seven are in the midwest: Ohio, Illinois (2), Indiana, Michigan, Minnesota, and Wisconsin; and there are three institutions offering the doctorate in both Texas and California. Of the 23 institutions offering the doctoral degree eight are fully private or state-related rather than public schools: Columbia, Drexel, Pittsburgh, Syracuse, Case Western Reserve, Chicago, Simmons, and the University of Southern California.

The number of actual programs is difficult to ascertain, as there is one joint program in Denton, Texas, offered through either North Texas State University or Texas Woman's University. Some schools, such as the University of Pittsburgh, offer separate Ph.D. degree programs in library science and information science and some, such as Berkeley, offer either the Doctor of Library Science or the Doctor of Philosophy. (A Doctor of Arts degree is offered by Simmons College in Boston but its stated purpose is to train library administrators not library educators.) Two institutions in Canada, Western Ontario and Toronto, have doctoral programs.

Using the highly imprecise method of analyzing the most current catalog/bulletin of the schools which could be obtained in the time period allowed the author, it was discovered that only 12 of the 24 institutions (Simmons was not analyzed) included in the purpose statement of their doctoral program(s) that training library educators was one of their goals. In no case was training library educators purported to be the primary goal; in fact, in some of the 12 cases, it required considerable effort in interpretation to conclude that producing library educators was indeed a purpose of the program.

Fifteen schools offer courses in library education. Seven of these were schools which did not mention producing library educators in their goals; four of the schools which had relevant purpose statements did not have courses. Two schools listed two courses in library education; one each at the master's and doctoral levels. Four of the 15 courses listed indicated that a practicum experience is included in the course. Nine schools offer teaching assistantships as one of the financial aid alternatives open to doctoral students. Five of these schools do not mention library education in their statements of purpose.

Based upon catalog/bulletin information, three schools apparently do not have any interest in preparing library educators, as they do not mention library education in their purpose statement, do not list a course, and do not offer teaching assistantships. One surmises that none of the faculty at these schools would declare their doctoral graduates unfit to take on positions as library educators. Six schools offer both courses and teaching assistantships for doctoral candidates; remembering that this data may not accurately represent what is actually the case, as it is based upon catalog information and not the results of a formal survey, these schools are: Florida State, Illinois, Indiana, Minnesota, Pittsburgh, and the University of Texas at Austin. One might conclude that it is to one of these programs that the prospective library educator should be directed. Faculty search committees might well look to these schools also. Yet, there is so little known as to what makes a good teacher, and even more problematical and demanding, a good faculty member, that looking only to the prospective candidate's basic preparation is not realistic. Further, related to teaching assistantships, it is important to realize that in many graduate level programs, graduate credit can only be earned when the course instructor is a member, or qualified to be a member, of that institution's graduate faculty. Doctoral students, unless they have reached candidacy level or have come from some distinguished prior background, may not meet this qualification and could therefore not teach in the master's level program; they could teach only where the school maintains some relationship with an undergraduate library education program. One might thus be more prudent to look also for prospective faculty from those schools which offer courses in library education. In addition to the six previously mentioned these schools are: Chicago, Columbia, Case Western Reserve, Michigan, North Carolina, North Texas State/Texas Woman's University, Syracuse, Western Ontario, and Wisconsin. Also one might look to the schools which apparently have teaching assistantships but no course: Buffalo, Rutgers, and

Toronto. That leaves UCLA, Berkeley, Maryland, Drexel, and the University of Southern California, and no one would claim that good teachers/faculty members have not obtained their doctorates from these schools. Therefore, we are back to the paradox; although not necessarily designed for that purpose, the doctoral degree is the basic requirement for entrance into the field of library education. Jesse Shera calls it the "doctoral dilemma."[4]

> There is, of course, nothing in the doctoral degree that guarantees, or even prognosticates, the capacity of its possessor to teach, nor anything in the generally prescribed course of study that is likely to prepare him for a successful teaching career.[5]

Basic Preparation of Teachers of Library and Information Science

Ideally, those who plan to enter the field of library and information science education should by their nature evidence "self-motivation, perseverance, curiosity, initiative, strong interests, and ability to work hard."[6] These are all characteristics, traits, or even skills, if you will, that are determined long before the potential faculty member becomes a doctoral student; however, evidence of these characteristics should be sought when selecting faculty.

Faculty charged with the responsibility of teaching and counseling doctoral students should encourage those with the majority of the characteristics listed above to consider library education as a career and concomitantly to dissuade those who do not. In addition a key element is, of course, articulateness; the good teacher must be able to communicate in both verbal and written modes.

Shera says, "I submit there are three elements requisite to success in teaching--substantive knowledge, communication and experience, the last of which is particularly important in the professional school."[7] Although experience is tantamount, he also cautions again ". . . the great danger of excessive dependence upon it . . . [for] it leads to provincialism in teaching."[8] Further, he states ". . . the best methods in the world cannot compensate for an absence of substance to be taught."[9] It is thus becoming more clear that even though doctoral programs may not provide opportunities for learning and/or practicing teaching methods or for study of library education and faculty roles, they do serve the key purpose of providing the student with exposure to a substantive body of knowledge.

If one agrees that gaining substantive knowledge is the most important activity for prospective faculty to undertake during their doctoral study, then the question arises, is there time within the program to study library education,

learning theory, teaching techniques, etc., and affording an opportunity for classroom experience? This author contends that there is. Each institution offering the doctoral degree should provide one course in library education for all students contemplating library and information science teaching careers. This course should include such curriculum components as:

1. The history of library education including the role of relevant professional organizations, accreditation, certification, international aspects, etc.[10]
2. Structure and organization of higher education, particularly professional education including such topics as tenure
3. Structure and organization of library and information science education.
4. The role of the faculty member
5. Contemporary curriculum structure and content
6. Teaching methodologies including instructional technologies
7. Learning theory[11]
8. Current problems/concerns

The course should provide opportunities for participants to read widely in the field, develop a model curriculum, course, course unit and class session and to present a class session. The presented class session should preferably be given to an actual class and should be videotaped.

Performance of the participants in terms of both their grasp of content and observed ability to communicate should be taken seriously. Those unable to perform the act of teaching should be dissuaded from a teaching career. Ability in this class should be communicated to other faculty members who might be recommending the participants for faculty positions.

Those interested in teaching careers should be encouraged to visit classes given by highly-respected teachers throughout the campus. Emulation of masters of teaching, as well as learning what not to do from bad teachers, is an excellent approach to acquiring teaching skills.

If it is not possible for the student interested in a library and information science education career to have full responsibility for a course, he/she should be given the opportunity to be a teaching assistant for one course given by a "good" teacher. Prospective faculty might be urged to take a visiting summer faculty position at an institution other than that at which they are a student so that they might taste the scope of the faculty role.

It has been suggested that major universities offer new doctorates a one-year internship or residency program in teaching.[12] It has also been suggested that new faculty join a school one term prior to the beginning of their teaching responsibilities[13] so that they might be introduced to the university, the particular library education program and its faculty and curriculum, develop courses, build confidence, etc. This latter suggestion might be feasible in the larger schools, but in most schools each faculty member is critical and a term without their covering classes would be impractical.

Continuing Preparation of Teachers of Library and Information Science

In reality, the early years of a faculty position are more basic than continuing preparation. After the initial introductory period of approximately three years, it is essential that faculty members begin to look to their own continuing education as well as espousing continuing education to their students. We are all aware of the tenured faculty members who do not "keep up" even in their own areas of specialty. Both pressure and opportunity should be provided to faculty to increase their substantive knowledge. Research activity is undoubtedly the best route to obtain such knowledge. Participation in professional organizations is another route, but the careful selection of the type of participation is essential. A return to practice for a summer or term is another method which may prove beneficial.

An additional focus of continuing preparation for teaching is in the area of teaching methods, skills and technologies. Many universities are now offering short courses in a variety of skill areas in which faculty should be encouraged to participate. The development of course and/or instructor evaluation instruments, test/examination development, course objectives development, and use of instructional technologies such as videotaping are but a few examples. These courses are usually conveniently offered in late afternoon hours or during intersessions. Faculty that participate should be encouraged to share highlights with their colleagues.

The continuing preparation of faculty members is one of the key responsibilities of the dean/director of the school. He/she should meet with each faculty member at least once each term to go over class evaluations and plans for continued development. In the absence of such plans, the dean should encourage, cajole or whatever is necessary, to ensure that the faculty member develops and attempts

to adhere to a plan. The plan should include activities expected to be accomplished in each area of faculty responsibility during the academic year and summer term(s). The plan should remain flexible to allow for unforeseen opportunities which may arise. Communication of plans among colleagues is important; a faculty member devoted to sharing development plans should be held each fall.

One opportunity for continuing development of faculty which is not to my knowledge available in the field of library and information science is the post-doctoral program. I strongly urge my colleagues from appropriate universities (e.g., Pittsburgh, Michigan, Columbia, Maryland, Chicago, UCLA, Toronto, etc.) to explore the development of a post-doctoral program, one purpose of which would be to allow library school faculty members to pursue a research project, study teaching techniques, etc.

The career of a library educator is a commitment to a career with unattainable responsibilities and constantly expanding areas of inquiry. While each faculty member will develop specializations and from time to time concentrate their activities in one or another of their areas of responsibilities: teaching, research and other scholarly activity, school activities, university activities, the preparation is never done. This should be looked upon as one of the joys of teaching. The preparation of a teacher is continuously basic to the art.

FOOTNOTES

1. American Library Association, Committee on Accreditation, Standards for Accreditation, 1972 (Chicago, [1972]), p. 6.
2. Ibid., p. 7.
3. Ibid.
4. Jesse H. Shera, The Foundations of Education for Librarianship (New York, Wiley, 1972), p. 442.
5. Ibid., p. 444.
6. Kenneth E. Eble, The Craft of Teaching (San Francisco, Jossey-Bass, 1976), p. 138.
7. Jesse H. Shera, ". . . And Gladly Teach," Journal of Education for Librarianship, XIX (Summer 1978), 60.

8. Ibid., p. 62.

9. Ibid., p. 61.

10. Several candidates for readings in such a course are included in the bibliography accompanying this paper.

11. For possible topics in this area see Appendix at the end of this paper.

12. Christopher Jencks and David Riesman, The Academic Revolution (New York, Doubleday, 1968), p. 537.

13. Peter G. New, Education for Librarianship (Hamden, Conn., Linnet, 1978), p. 55.

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APPENDIX

FINDINGS FROM THE FIELD OF LEARNING THEORY

- Learning is an active, continuous process. Purposive action is better than mere repeated motion. Humans learn many things they don't need to know.
- Learning takes place in terms of stimulus and response; conditioning is a common term to describe the process. Catching and maintaining a learner's attention provides the necessary condition for a desired stimulus to evoke a response.
- Learning is affected by the learner's set--that is, a predisposition to react to some stimuli in a particular way.
- Learners can be motivated in many ways to learn specific things. Conflicting motivations may get in the way of learning.
- Time and conditions affect learning greatly. Individuals vary greatly in the time they take to learn something.
- Association is an important aspect of learning. Identifying, grouping, and sequencing assist learning.
- Reinforcement is the general term for stimuli introduced to reinforce behavior that stimulates further learning.
- Rewards seem to affect a wider range of learning more favorably than does punishment.
- Relearning is much easier than original learning. Recall is different from retention; given the right stimulus, learners can recall more than they commonly suspect.

- Progress in learning is not uniform, but frequently reaches plateaus where the rate of learning slows appreciably.
- Interference is a common cause of forgetting. New and similar learning can interfere with the old. Learning a thing well helps to counteract interference.
- Interfering responses may inhibit learning; therefore, they may have to be removed to foster learning.
- Transfer of learning has been too uncritically accepted in the past. Success in learning some things may make it easier to learn others. It is possible to learn how to learn.

SOURCE: Kenneth E. Eble, The Craft of Teaching (San Francisco, Jossey-Bass, 1976), pp. 150-151.

REACTION

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I have read Jane Carter's paper with interest. She has covered her assigned topic thoroughly, and I find that I have no serious disagreement with her observations. I should like merely to expand and comment upon some of the points that she makes.

Dean Carter notes correctly that the typical path to appointment to a library school faculty today requires one to earn the master's degree in librarianship, acquire some library experience at the professional level, and to complete (or at least achieve candidacy status with expectation of completing) the doctorate. I would add to this list "evidence of productive scholarship, or at least strong potential for such scholarship." By "evidence" I mean, of course, publication. At least for those library schools located in universities which characterize themselves as research institutions, "a record of sustained productive scholarship," to lift a phrase from the American Library Association's Standards for Accreditation, 1972, is now demanded of each faculty member hoping for promotion and tenure.

At a time of "no growth" in library schools as in the institutions of which they are a part, tenure will be increasingly difficult to achieve. Initial appointment with tenure, which in many institutions has been automatic with the rank of associate or full professor, is becoming less and less common. For example, of the 50 new faculty appointments, exclusive of deans and directors, made in 1979-1980 among the 67 library schools holding ALA accreditation, only three were as full professors, while 12 were at the associate professor level. (Two of the three professors were given immediate tenure, but only two of the new associate professors were so blessed.) As full professors retire, there is a growing tendency to replace them with assistant professors (or instructors or lecturers) in order to acquire "flexibility" in the budget. If the saving in dollars is not snatched back by the central administration, the library school then has them for other purposes, perhaps to improve the salaries of the remaining staff.

Still another qualification is demanded of the new faculty member: professional library experience. Since most Ph.D. granting library schools require this for entrance into the doctoral program, it is rather automatically translated by the hiring institution to mean post-master's but pre-doctoral library experience. This combination of library experience and the doctorate results in an annual pool of applicants whose average age is higher than in almost any other discipline. A check of the vitae of the 68 doctoral students seeking teaching positions that were included in the packets distributed to library school deans in 1979 and 1980 reveals their average age to have been 36.7. Despite the years of professional experience of these individuals, each was a "new Ph.D." in the eyes of the deans with faculty openings and, therefore, was deserving of the rank and beginning salary of assistant professors. Twenty-four new assistant professors were appointed in 1979-1980 by library schools on the accredited list. Among the 18 receiving academic year appointments (12 females and 6 males), the salaries varied from a low of $15,500 to a high of $22,947, for an average of $17,319 (median $17,000). For the six given fiscal year appointments, all in Canadian schools (4 females, 2 males), salaries varied from a low of $17,750 to a high of $28,000, for an average of $22,020 (median $21,500).

Although not mentioned by Dean Carter, a relatively new element in the recruiting of faculty is affirmative action. Advertising of faculty openings is now essential in order to form a pool of qualified applicants, and the library school, like any other academic unit, must subsequently be in a position to prove that the basis on which the final selection was made met affirmative action criteria. Another change in faculty recruitment during the past decade has been the increased role of the governing faculty in the selection of their future colleagues. Even students now have a part in the selection process, whereas ten or fifteen years ago the dean or director often made such decisions with no more than token faculty advisement. It would be interesting to study how faculty and student involvement in the selection process has affected the nature of new faculty appointments. I have the feeling that the consensus process has reduced risk-taking and tends to promote faculty homogeneity.

Dean Carter points out in her paper that many library school faculty members still lack the doctorate. I am able to provide some statistical basis for this observation from data with which I am currently working as part of a statistical study being conducted by the Association of American Library Schools. On

January 1, 1980, there were 714 full-time faculty members among the 67 library schools holding ALA accreditation. Of these 714 (just one fewer than on January 1, 1979), a total of 489, or 68 percent, had an earned doctorate. Among the 225 without the doctorate (32 percent), there were many, of course, who were doctoral candidates.

Dean Carter noted also that some library educators hold their doctorates in fields other than librarianship. The 1980 AALS survey will provide, for the first time, statistics to support this assumption. Of the 489 full-time library educators holding the doctorate in the 67 library schools on January 1, 1980, 308 were reported as having their doctorate in library science. (Included in this total were those whose doctorate was described as being in library and information science.) Eleven were reported as being in information science alone, while 170 were identified as being in other disciplines. We can say, therefore, that roughly one-third of the full-time faculty in accredited programs who have earned doctorates took those degrees outside library science. By far the largest number (80) of those degrees are in education, including educational technology. History and English are each represented by 14 doctorates. Those disciplines represented by 5 or more are: foreign languages and literature, philosophy, psychology, engineering, and chemistry. The rest are scattered from art history to zoology.

Dean Carter has reminded us of a rather embarrassing characteristic of library education: as a group we do not have a distinguished research and publication record. She noted that the 1972 Standards for Accreditation do not, perhaps, place as much emphasis on research as they should, citing only the need for "an aptitude for research" in the list of qualifications expected of each faculty member in an accredited library education program. As a participant in the drafting of the 1972 Standards, I well remember the debate on this issue and the conclusion that, in describing the individual faculty member, we could not go beyond "aptitude for research," but it should also be noted that, in describing what should be expected of a library school faculty as a group, "a record of sustained productive scholarship" is included. The committee charged with drafting the 1972 Standards hoped that this general statement would enable the Committee on Accreditation to evaluate the research record of a school's entire faculty under review. Library schools are by no means the only academic units in universities where the bulk of the research and publication is accomplished by a minority among the faculty.

As universities tighten their belts during the 1980s and tenure and promotion are attained less easily than in the 1960s and 1970s, we can be sure that untenured library educators are going to feel mounting pressure to do research (including the seeking of research funds from outside the home institution) and to publish the results of that research. Tenured faculty, concerned with merit increases in their salaries, will experience similar pressure. Universities that pride themselves in being known as research institutions are becoming less and less tolerant of units that do not contribute to that reputation.

Dean Carter has covered well the problems faced by library schools in preparing doctoral students to be library educators. Surely a seminar in trends and issues in library education is the least that can be expected. Providing doctoral students with the opportunity to do practice teaching is a problem, because it scarcely seems appropriate for graduate students to teach graduate students. Unlike most academic units, library schools do not generally have an undergraduate student body on which teaching fellows can practice. (As a parent of undergraduates, I might note here, I am not enthralled with the teaching fellow program found in large universities.) I believe that library schools owe their master's degree students too much (keeping in mind the tuition they now have to pay) to permit the dean or director to guarantee every doctoral student an opportunity to teach a course or two. Of course, some doctoral students are already experienced library educators and providing them teaching opportunities usually has more economic than pedagogic motivation. We should be able, however, at least to offer doctoral students opportunity to observe and assist master teachers and to conduct an occasional class under supervision. My own school has arranged for a visiting professor from U.S.C. to be assisted next summer by one of his doctoral students at only a slight increase in the total stipend.

As Dean Carter notes, by no means all of a library science doctoral student's courses should be in library science. If we agree that schools of education exist to educate students to teach, we should expect to find useful courses there for doctoral students planning on careers in library education.

Dean Carter notes that prospective library educators should visit and observe the classes of highly respected teachers. We should keep in mind, of course, that our doctoral students planning on teaching careers come to us with the master's degree--they have already had opportunity to observe a number of library educators in action, and they doubtless still recall both good and bad teaching

techniques observed during their undergraduate days. Perhaps a reason why doctoral study is best pursued in a library school other than the one in which one took his/her master's degree is that the prospective library educator will then have exposure to a larger number and a greater variety of respected teachers.

Dean Carter expresses the wish, which she admits can rarely be granted, that the new faculty member be given an initial term in which to prepare his/her assigned courses. While few library schools can afford this luxury, it is not uncommon for a school to offer a reduced teaching load during one's first year. At my own school last fall, for example, two new assistant professors were each assigned two sections of one course as their sole teaching load during the first term. In the winter term they repeated this course while expanding their repertoire. In advising our own doctoral students as they go for interviews for teaching posts, I urge them to get straight answers not only regarding the anticipated teaching load in terms of courses per semester or quarter, but also the number of different courses they will be expected to teach over a two or three year period. Teaching loads should be measured not only in the number of courses and credit hours per term, but also in the total repertoire of courses for which one is responsible. While variety may appeal to the experienced teacher, the beginning teacher, in my opinion, should have responsibility for no more than two or three courses during his/her first two or three years.

Library educators are not only expected to be successful teachers and researchers, but it is usually assumed that they will also be active in the work of professional associations as well. The reputation of a library school is determined largely by the reputation of its faculty, and their visibility at conferences, institutes, and workshops plays a critical role in determining that reputation. The availability of faculty travel funds, and their method of distribution among faculty, are matters into which a prospective member of that faculty should inquire carefully. Where travel funds are tight, as is true in most universities today, there is often a tendency to reserve them for faculty members who have important committee assignments or who have invitations to deliver papers. The beginning assistant professor is rarely appointed to a committee or invited to read a paper, however, unless he/she has previously attended meetings and conferences of the association that can offer these opportunities. In the distribution of travel funds, therefore, the dean or director must determine how the limited dollars can be stretched not only to reward the professionally prominent faculty mem-

ber but to encourage the beginner to become involved. The school's policy in this regard should be part of the applicant's area of inquiry along with salary, office space, fringe benefits, reimbursement for moving expenses, secretarial assistance, etc.

My final comment pertains to Dean Carter's recommendation that library schools which offer the doctorate and are located in large research universities undertake to provide opportunity for post-doctoral study as a form of continuing education for library educators. I am sure that each of the schools which she suggests might be appropriate for such an endeavor will immediately inquire regarding the source of funding for such an undertaking. Representing one of the library schools specifically listed by Dean Carter, I can only suggest that a number of schools might pool their grant proposal efforts to attempt to secure funding for a kind of travelling scholar plan through which a library educator would take leave to spend time at two, possibly three, library schools. Might a foundation be persuaded to support such a project?

Under the umbrella of the Committee on Institutional Cooperation (the Big Ten universities plus the University of Chicago) the seven library schools included in the CIC (Chicago, Illinois, Indiana, Iowa, Michigan, Minnesota, and Wisconsin) were unsuccessful a few years ago in their attempt to find funding for an internship program for female library educators interested in gaining administrative experience. The proposal offered each intern the opportunity to study in two of the seven library schools, with commitment on the part of the deans and directors thereof to provide office space as well as opportunity to participate in all aspects of administration. The funding sought was to provide only for the support of the interns themselves. Despite the considerable influence of the CIC's staff, an interested foundation was never found. Our lack of success in that endeavor, which we expected to have considerable appeal in this day of affirmative action, suggests that funding for a post-doctoral program will be equally illusive, although one can always try.

Regretfully, I am ending my comments on a negative note, a not uncommon characteristic of decanal comment in these days of tight budgets.

REACTION

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Perhaps the best way to analyze the problem of training library science teachers is to ask ourselves what characteristics a good teacher should possess. Undoubtedly we have had occasion to hear that Professor X is a good teacher, because of his passion for and interest in the material, his concern for and ability to transmit ideas, his mastery of the subject, his receptiveness to questions, his capacity to motivate, his thorough preparation, his organizational ability, his ability to combine and utilize varied and effective teaching methods, etc. In this connection, Shera indicates the existence of three essential elements that result in successful teaching. These factors are "Substantive knowledge, communication, and experience."[1]

Although these attributes may seem common enough, the problem remains that many professionals who are involved in library science teaching lack these characteristics. This problem has developed, because the career ladder in teaching positions depends on academic laurels. Of these the most basic are degrees and scholarly productivity, the latter measured primarily by publications and research. As Dr. Carter has so aptly pointed out in her paper, these academic requirements constitute the basis for aspiring to teaching positions in library science; consequently we find the need for the master's degree, then the doctorate, if the faculty are to meet the Standards for Accreditation, 1972[2] and for more advanced programs as well.

Nevertheless, the lack of academic excellence in the area of library science has arisen, because doctoral programs are neither structured nor designed for training good teachers. In this respect I share Dr. Carter's concern that each doctoral program in library science should include resources and mechanisms necessary to train competent teachers. Dr. Carter suggests one course. Undoubtedly a single course would not allow for thorough coverage of the topics she proposes. Rather there should be several courses, so that the doctoral candidate can better prepare himself for his future teaching responsibilities.

Possibly a wise solution is the alternative offered by the State University of New York at Buffalo, although the conditions need not be quite so particularized. The important thing is that the program offer candidates for library science teaching the opportunity to take more courses and to participate in activities which will prepare them better for teaching. A possible distribution of work in a doctoral program might be: core courses in library and information science (40%); tool and research courses (30%); and courses selected from teaching theory and methods, higher education, audiovisual resources and techniques, college and university curriculum, etc. (30%).

It seems to me that in this matter I share Richmond's idea[3] that the doctoral program in library science should be a hybrid. This hybrid consists of the needed training in library science along with knowledge in a specialized area. The key idea, therefore, is to train a specialist in instruction in library science.

With respect to continuing education I am in agreement with Dr. Carter's suggestions.

FOOTNOTES

1. Jesse H. Shera, ". . . And Gladly Teach," Journal of Education for Librarianship, XIX (Summer 1978), 60.

2. American Library Association, Committee on Accreditation, Standards for Accreditation, 1972 (Chicago, [1972]).

3. Phyllis A. Richmond, "The Ph.D. in Library Science," College and Research Libraries, XXXI (September 1970), 315.

RECOMMENDATIONS

The participants in the Conference on Library and Information Science Education in the Americas: Present and Future recommend:

(1) That library schools in Latin America and the Caribbean make greater efforts to cooperate at both national and international levels and that they support activities relating to library education within such international organizations as ALEBCI, FID/CLA, IFLA Section for Latin America and the Caribbean, ACURIL, and SALALM. (It is suggested that each school appoint one professor to serve as liaison with these bodies.)

(2) That library schools in Latin America and the Caribbean take all possible steps to implement the recommendations approved by the Latin American Meeting of Directors of Library Schools (Bogotá, 1976) and that they utilize ALEBCI as the vehicle for those actions requiring cooperative effort.

(3) That the Association of American Library Schools appoint a special committee, composed of representatives from the United States, Canada, Latin America, and the Caribbean to carry out plans in the following areas:

(a) the mutual improvement of educational programs;
(b) the exchange of professors;
(c) the stimulation of research; and
(d) the promotion of publications and exchange of educational materials.

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